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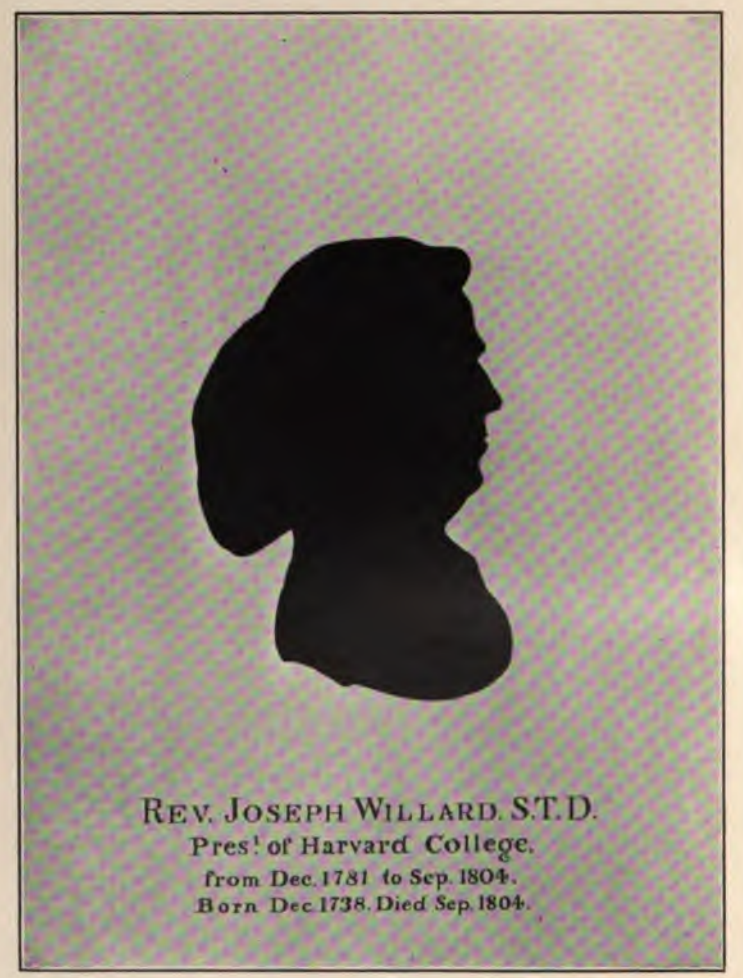
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REV. JOSEPH WILLARD. S.T.D.
Pres.t of Harvard College.
from Dec. 1781 to Sep. 1804.
Born Dec. 1738. Died Sep. 1804.

THE

Harvard Medical School

A HISTORY, NARRATIVE AND DOCUMENTARY

1782  1905

BY

THOMAS FRANCIS HARRINGTON, M. D.

Class of 1888

EDITED BY

JAMES GREGORY MUMFORD, M. D.

Class of 1888

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EDITOR'S PREFACE.

The history of the Medical School of Harvard University is so closely interwoven with the history of medical education in America, and especially in New England, that the author has found it impossible to develop his immediate theme without a brief consideration of the broader field. And that broader field is a fascinating field; it remains to be tilled fully by a future historian, but such glimpses of it as are allowed here must show the reader how the struggle for improvement has been steadily upward against discouraging conditions, how far we are from perfection still, and how a familiarity with our past is essential to every teacher who would work intelligently for a continued betterment of the medical profession.

Our author has had untrammelled access to authorities and documents, and he tells in elaborate detail the history of the Harvard School. After giving us an account of the medical conditions in New England during colonial times, he recounts what service Harvard men furnished to the medical department of the Revolutionary Army, and then plunges into the story of the School's founding and feeble growth through the latter part of the 18th century, when the teaching was in Cambridge and hospitals did not exist. Numerous biographical sketches of ancient Harvard Medical worthies follow, and the period ends with the year 1810.

Then the School was transferred to Boston and waxed strong. Hospitals were built, teachers multiplied, new learning was imported, famous names appeared on our rolls, and, just as an educational expansion was becoming imminent, the era ended in the crash of the great Civil War. So much is told in Volume II.

With Volume III we learn of a revolution in medical education. President Eliot takes the reins. The old order changes. The old School had been a truly private enterprise under the shelter of the University. The new school becomes an integral part of the University. We read the inspiring story of the new learning and of University development throughout the land,—a story which must appeal to every thoughtful man. So we follow the history of the Harvard School down to the present, and learn of the great new foundation which tomorrow we shall enjoy.

The history of a professional school cannot furnish many dramatic incidents. It flows on gently from year to year, punctuated here and there with names, discoveries, upbuildings; with struggles, vicissitudes, contests. To be complete, a history of this kind must be largely statistical and documentary; such are the volumes before us; but through them there runs a stream of narrative which Harvard men will follow with interest and satisfaction.

Especially valuable are the sketches of Eminent Alumni. When you read the stories of Nathan Smith, Howe, the Warrens, Dalton, Flint, the Bigelows, Holmes, Parker and many others, you appreciate the wide influence of the Harvard School; and if you are blessed with imagination you thrill with pride.

Dr. Harrington has done his work faithfully and laboriously; he has consulted the original documents; he has left no stone unturned. He thanks the University authorities for sympathy and assistance. The treasures of the Harvard Library, the Corporation and Faculty records, documents of the Boston Medical Library and of the Massachusetts Historical Society have been put at his disposal, the valuable Warren papers have been opened to him by Dr. J. Collins Warren, and he has gleaned from other collections of private documents and manuscripts hitherto unused. Both author and editor thank the whole body of Harvard Medical Alumni for their coöperation and friendly interest in this work.

J. G. M.

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The Harvard Medical School

NEW ENGLAND CONDITIONS
1620 TO 1775

The Harvard Medical School.

CHAPTER I.

NEW ENGLAND CONDITIONS—1620 TO 1775.

The Harvard Medical School may be said to have been founded on September 19th, 1782, at which time the Corporation of Harvard College adopted the report submitted to that body, embodying a plan for the formation of a medical school. On November 22nd of that year the Corporation voted to appoint one professor to manage all branches of the new school, and John Warren was elected to fill the position. His letter of acceptance is dated December third, 1782. It is addressed to the President and Corporation, and reads as follows:

Reverend Sir,—

"I sensibly feel the honor done me by the Corporation of Harvard College in electing me a professor of Anatomy and Surgery in the University at Cambridge, and wish them to accept my warmest thanks for their attention. After so public spirited an exertion as has already been made by the governors of that University for the advancement of medical science, it would ill become me as a student and practitioner in that particular branch of the Arts and Sciences to refuse my mite towards the promotion of so generous a design. With a mind therefore impressed with the importance of that object, I think it my duty to declare my acceptance of the trust reposed in me, relying on you to place that candid construction on my conduct in the execution of my duty to which I know I may safely appeal, from men of liberal minds."

On December 24th, 1782, Benjamin Waterhouse was chosen Professor of the Theory and Practice of Physic, and on May 22nd, 1783, Aaron Dexter was chosen Professor of Chem-

istry and Materia Medica. On October 7th, 1783, Warren and Waterhouse were inducted into office with much ceremony, the inauguration taking place in the meeting house, in the presence of the governors of the University, the students and others. Dexter, being unavoidably absent at the time of the inauguration, was installed later before the Overseers and Corporation.

From that time the Harvard Medical School has gone onward and forward, giving forth energy and strength and force until we behold her today in the fullness of her beauty, a pleasure and model to all those seeking knowledge and guidance in Medical Science.

In the subsequent chapters of this book it is proposed to trace the history of the origin, growth and development of this School, and to recognize those of her alumni who have done their part to add to her lustre and fame. In doing this I shall not be understood as derogating from the merits and achievements of other institutions of learning. Such a spirit is foreign to our Alma Mater. Rather shall we rejoice in the fact that alumni of other colleges bring their gifts of learning and knowledge to her altar with the same mutual benefit and recompense which the sons of Harvard take to many kindred schools. It is only in the cultivation of this spirit that the realization of the highest hope in medical progress lies, and the attainment of an alma mater worthy of all, American Medicine.

Surprise is shown by most writers of medical history that Harvard College made no effort to establish a school for the education and special instruction of physicians between the time of her founding, 1636, and the year 1782. These implied strictures are not wholly just. It was Harvard College that

nourished and protected from the blighting influence of storm and heresy that tender sprig of medicine which had been transplanted to these shores by the earliest settlers.* It was she who introduced (1639) and guarded from abuse the first printing press in America, and from this press issued the first medical publication in this country (1677), the work of Thomas Thacher, educated under the supervision of Chauncy, who afterwards became president of Harvard College. It is to her alumni, too, that the honor belongs of introducing, advocating, and fostering three great questions in this country, having in view the advancement of medical science and the amelioration of human suffering, namely: inoculation, vaccination, etherization. Recompenses such as these render needless further apology for Harvard's shortcomings in the establishment of her medical department. If any such be needed, we should recall the conditions of those early times. The welfare and establishment of the Church came first—a motive which prompted its disciples to sever all ties to country and home; principles for which they were ready to suffer even death in maintaining. Then, too, there were the many questions of political economy, the difficulties in procuring funds,† and the scanty necessity for higher medical education, so that

* Edward Rawson in a report on the college and schools, under date, Boston, 11th of May, 1665, says:

"And through the blessing of God (wee may say & yt without boasting) that at least one hundred able preachers phisitions & Chieurgeons & other usefull persons that have beene serviceable in his Magistys Dominion & have issued thence." Massachusetts Archives, volume 58, at State House.

† In 1642 when an act establishing the Overseers of Harvard College was passed, the revenue was £400 from the General Court and "The revenues of the ferry betwixt Charlestown & Boston."

the few well educated physicians shared with clerical physicians the fullest confidence of the community. Piety, Morality and Learning were the pillars of that great edifice which modern advancement has so well established.

The founders of the college had in mind one object, one field of action, namely—the ministry. To the Puritan, nothing could equal the ministry. That was the embodiment of all that was necessary. This is strikingly shown in "New England's First Fruits," published in London, 1643, in which it is said, in referring to the new college in America, that "one of the next things we longed for, and looked after, was to advance learning and perpetuate it to posterity; dreading to leave an illiterate ministry to the churches when our present ministers shall lie in the dust." Later this view widened as the circumstances of time and the necessities of events pressed forward, and we find provisions for educating men for service of the State. Since that time the aim of the college has broadened until it has become in name what it is in fact—A University.

Time has proven the wisdom and foresight of our forefathers but perhaps in no one respect is that wisdom more manifest than in the laws and customs inaugurated at the founding of Harvard College. To the New World were brought the institutions and usages of the Old, where centuries had modified, moulded and fixed all questions relating to learning and education so that we are not surprised to find those same laws and usages forming a fundamental part in the establishment of the first college in America. With Henry Dunster, a graduate of Magdaline College, Cambridge, as our first president, it is but natural that the course and policy of

the new college should follow in the footsteps of the old. Time has somewhat mitigated that influence, yet traces of its deep roots can often be found in our own days. Be that as it may, the point to be recognized here is that the Colonial period of medical history was greatly influenced, was even formed and controlled by the conditions then existing in the Old World, and more especially in England. It becomes necessary therefore to consider briefly the men and questions existing at that time in Europe.

At the date of the first permanent settlements in America the intellectual revolt of the sixteenth century was rapidly making is results manifest in manifold directions. In the accomplishment of these results two factors stand out boldly,—religion and medicine; one often perhaps outshining the other, yet both so intimately associated that separation robs each of many of its attributes.

Francis Bacon (1561-1626) with his philosophy of induction founded upon exclusion and elimination, shares with René Descartes (1596-1650) the honor of establishing physiology upon a better basis. The new understanding of the circulation of the blood now given to the world for the first time by Harvey (1628) found an advocate in Descartes, who by his dissections of animals gave strength to certain of Harvey's claims—a work carried through the Seventeenth Century by his disciple Malebranche (1638-1715) and by Robert Boyle (1626-1691); Blaise Pascal (1623-1662), Sir Isaac Newton (1642-1727), VanHelmont (1578-1644), Spinoza (1632-1677), and John Locke (1632-1704),—the last two educated in medicine. Kepler (1571-1630) and Galileo (1564-1642) were giving to the new born intellectual world those evidences

of genius which time has served to strengthen. Harvey (1578-1657), Sydenham (1624-1689), Malphighi (1628-1694), Leeuwenhoek (1632-1723), Thomas Wharton (1614-1673), Highmore (1613-1685), and Thomas Willis (1621-1675) are names which readily suggest to the medical student lines of research which the first effective use of the microscope in 1625 must greatly have aided. In the latter part of the seventeenth century the names Stahl (1660-1734), Hoffman (1660-1742), Pitcairn (1652-1713), Boerhaave (1668-1738) and his pupils, and Richard Mead (1673-1754) represent the best that was being done. If to these we add the name of Richard Wiseman (1625-1686), the "Father of English Surgery," we have fully completed the list of the men whose influences were to form the predominating characteristics of medical history in New England.

The medical schools of Padua, Leyden and Montpellier were the centres to which students went for the completion of their studies begun elsewhere. The Civil Wars of England had interrupted medical studies at Oxford and Cambridge. A reaction set in, and we see its results in the life and works of Sydenham and Boerhaave. A recent writer of medical history* says: "The Civil War, which violently upset the speculations and research at Oxford, when, as Antony Wood says, the University was 'empty as to scholars, but pretty well replenished with Parliamentary soldiers,' afforded just that stimulus to thought and that upheaval of dogma and prejudice, which were eminently favourable to the advance of medical science. Men had learned to treat old doctrines with

* Edward Bardoe, in "The Origin and Growth of the Healing Art."

little respect for their mere antiquity; authority was discredited, it was subjected to test, observation and criticism; men no longer believed those doctrines about God and His counsels which the Fathers and the Church taught them about religion, much less were they inclined to bow to Aristotle and Galen when they dictated to them on medicine. Anciently, when bitten by a mad dog, it was enough to them to believe with the fathers of medicine that it was sufficient for the patient to hold some herb dittany in the left hand while he scratched his back with the other to ensure his future safety. Men took to thinking for themselves; the spirit of investigation was aroused; men's minds, in every condition of society, in every town and village, were aroused to activity. There probably never was a time when there was more activity of thought in Oxford than at this period. The stimulus of collision evoked many sparks of genius, and the Civil War produced at our Universities wholesome disturbance not destruction of any good things." Much as it would benefit the twentieth century medical student to study the discoveries, progress and lives of the men of that period, our topic urges us on.

Before the coming of the Pilgrims to these shores, those firm, resolute men had had their moral worth tested. Their heroism needs no encomium in these pages, neither does it concern us what doctrine they professed;—suffice it for us to know that faith and conscience they had, two qualities which meant so much in a work destined to be permanent and great. Philosophical speculation was never so active in Europe. Theory followed theory; schools, systems, and sects arose only to fall or to be transformed into less religious and more worldly

institutions. All this had a marked bearing upon the status of medicine.

In the study of Colonial medical history, to separate medicine from theology is difficult. When the Pilgrims landed at Plymouth in 1620 much of the advance learning of the mother country was introduced into the new world. One of their aims was that learning "might not be buried in the graves of the forefathers."

The members of the medical profession have some cause for pride in that first settlement. One of the passengers of the Mayflower, and the eighth signer of that memorable compact which has served as "The basis of civil self-government, the fame of which will never die," was Doctor Samuel Fuller.* Fuller was the first physician to settle permanently in New England, and was for many years the only physician here. Whether he was a graduate in medicine from the University at Leyden where Harvey was then setting forth that doctrine which meant a revolution in the theory and practice of medicine, or whether he was a minister who had been educated in medicine, after the custom at Oxford and Cambridge at that time, cannot be said. Bradford in the "Log Book of the Passengers Sailing on the Mayflower," gives the occupation of Samuel Fuller as Physician, and "The vocations given were, as far as ascertained, the callings the individuals who represented them had followed before taking ship." Many instances are given in the histories of those early times, setting forth the

* For a biographical account of Samuel Fuller see Johns Hopkin's Bulletin, October, 1903.—Dr. Samuel Fuller, of the Mayflower (1620). The Pioneer Physician. By Thomas F. Harrington, M. D.

high-mindedness and sterling qualities of this pioneer physician. In the epidemics which prevailed among the New England colonists, we find evidence of Fuller's devotion to his comrades. Two instances are related in which his service gives to us, his successors, claim to an honorable share in the history of this country; Fuller's visit to aid the Endicott Settlement at Salem, and Winslow's services to the Indian Chief Massasoit. In the first instance Fuller's intercourse with Governor Endicott was the means of turning the Puritans from the belief which was held both at Salem and in England that the policy of the Plymouth Settlement was inimical to that of the Puritans. The result of this change of sentiment was soon shown in the co-operation of the two settlements, and a greater disposition at "home" for people of means and education to emigrate to this country. In the second instance recorded,—Winslow's curing Massasoit by means of the "confection of many comfortable conserves, etc.," sent by the surgeon (Dr. Fuller),—was the means of so gaining Massasoit's confidence that he betrayed a plot of the combined tribes to exterminate the Plymouth Settlement. This plot Winslow was able to frustrate, and the settlement was saved from the fate which had befallen the earlier Virginia colonies. Fuller died in 1633, a victim of smallpox contracted while in the discharge of his duties. His will is the first one probated in this country, and gives much interesting information as to his professional activity as well as evidence of his learning and business acumen.

After Fuller's time the list of medical practitioners in New England grew rapidly. Many, it is true, represented what

Cotton Mather calls in "Magnalia," * "Angelical Conjunction," nevertheless it is a well established fact that because the course of studies at Oxford and Cambridge included medicine in the theological preparations of its students, many men of ability and education are numbered among the early Massachusetts settlers. This was a fortunate circumstance for there was little to tempt from Europe physicians of attainments, to hazard the risks and uncertainties of the uncultivated wilderness. We are not surprised, therefore, to find the physician combining the duties of his office with those of minister and school master. Those were days of small means and few comforts. That the men were able to do so much speaks volumes in their praise. Year by year physicians from European Colleges were coming and often remaining, some as contract physicians to the various expeditions, and some who, says Mather, "were ejected from the ministry, after the restoration of the monarchy and establishment of the Episcopal Church." These men acted as preceptors to those who were to carry on the work. As early as 1645 graduates from Harvard College began to go to Europe to complete their medical education. These have a special claim to our recognition, as they are Harvard Alumni and several of them became presidents of Harvard College. They have their share in this history of our Alma Mater, and become part of the long line of our medical ancestry back to Colonial days.

At the first Commencement of Harvard College in 1642, Samuel Bellingham and Henry Saltonstall were graduated. Both went to Europe to complete their studies, Bellingham

* Book iii, chap. 26.

at Leyden, and Saltonstall at Oxford. Both were "learned physicians." John Wilson, son of the pastor of the first church built in Boston, was graduated at the first Commencement at Harvard in 1642. He is spoken of as "pastor, school-master and physician."

John Alcock was graduated 1646, and his brother Samuel Alcock was graduated 1659; both practiced medicine, the former at Roxbury and the latter at Boston, Massachusetts.

John Rogers was graduated 1649. He forsook the ministry for the practice of medicine. In 1682 he was elected President of the College.

Leonard Hoar was graduated 1650. He received his M. D. at Cambridge, England. He was elected President of Harvard in 1672.

John Glover, of the same class, received his M. D. at Aberdeen in 1654. He settled at Roxbury, Massachusetts, and is spoken of as one of the college benefactors.

Michael Wigglesworth was graduated in 1651. He practiced medicine, and wrote a résumé of the illness of the year 1662.

Samuel Bradstreet was graduated in 1653. He went to England, where he remained until 1661. He practiced at Boston until 1670, and died at Jamaica, 1682.

Charles Chauncy was M. D. of Cambridge, England. He was elected the second President of Harvard College in the year 1654. He left six sons, all of whom were educated at Harvard, and Mather says were eminent physicians, as their father was before them.

Gershom Bulkeley graduated in 1655, married Sarah Chauncy, daughter of President Chauncy. In the wars against

Narragansett, Bulkeley is mentioned as surgeon. He was a minister who qualified as a surgeon, and a letter left by him shows that he was employed as an expert on insanity in a murder case.

Elisha Cooke, of the class of 1657, was one of the first natives of Boston to study medicine. He was justice of the supreme court of the Massachusetts Colony.

Benjamin Thompson was graduated in 1662. He settled at Roxbury, Massachusetts, where he became eminent as a physician and school-master, with some celebrity as a poet. He was head master of the Boston Public Latin School. His death is thus noticed in the Braintree Town records: "Mr. Benjamin Thompson, practitioner of physick for about thirty years, during which time he kept a grammar school in Boston, Charlestown, and Braintree; having left behind him a weary world, eight children and twenty-eight grand-children, deceased April 13th, 1714, and lieth buried in Roxbury, aged 72."

Thomas Oakes, a brother of President Oakes of Harvard, was graduated 1662, and is called by an English contemporary* "The greatest Aesculapius of the country."

Daniel Mason was graduated 1666. He practiced medicine, and is said to have been captured by an Algerine, and to have died in Algiers.

Daniel Allin, of the class 1675, practiced medicine at Dedham, where he died, 1692. He was College Librarian from 1676 to 1679.

Thomas Scottow, of the class of 1677, practiced medicine.

* John Dutton, 1686.

James Oliver, the great-great-grandfather of Oliver Wendell Holmes, graduated 1680, and seems to have practiced medicine free from the superstitions of the times.

John Clark was graduated 1687. He was very prominent in the controversy over inoculation for smallpox in 1721.

Another physician who was graduated at Harvard, 1693, and wrote much on the question of inoculation at the time of that controversy was Nathaniel Williams. He was ordained a minister, later became instructor in the South Grammar School at Boston, and practiced medicine in the latter part of his life. He was called the "beloved physician," from his kind and tender deportment in the sick room.

Thomas Little, a graduate of Harvard in 1695, practiced medicine, was a merchant of some note, and held many civil offices in Plymouth county. His surgeon's chest was valued at £17 s10 do at the time of his death.

Oliver Noyes, of the same class, 1695, was a physician. Hutchinson says of him, "very humane, obliging disposition, and very strongly attached to the popular party." He was a member of the artillery, and an officer in the Boston militia.

Elisha Cooke, Jr., was graduated 1697. He was a physician, and was clerk of the Supreme Court.

Samuel Mather, Jr., was graduated 1698. He practiced medicine at Windsor, Connecticut. Stiles says, "After a life of professional usefulness, during which he held various civil and military offices of trust and honor, he died February 6, 1745, in the sixty-eighth year of his age."

John Bulkeley, son of Gershom Bulkeley, graduated 1699, settled in Colchester, Connecticut, 1703. He was distinguished in theology, in law and in medicine.

Not a bad beginning at a time when medical libraries had no existence in this country; with no medical journals until near the close of the eighteenth century, and no newspaper until 1704; when the first newspaper printed in America appeared, "The Boston News-Letter." There were other men whose services as physicians and public-men might be noted. This has in a great measure been done in many other channels. Let us, therefore, in these pages cling closely to those related by the double tie—Aesculapius et Alma Mater.

A conspicuous fact is the first medical publication in America, "A Brief Guide in The Small Pox and Measles," * published in 1677 by Thomas Thacher, first minister of the Old South Church, Boston. He studied medicine under the care of Mr. Chauncy, afterwards president of Harvard College. Moreover, some attempts at laws were made, especially those relating to quarantine and quackery. Four or five autopsies are alleged to have been done. Otherwise the state of medicine in New England gradually declined as the end of the century approached.

In those days the controversy in Europe between the followers of Paracelsus and those of Galen was showing its effect here in a belief in the "magic touch," in skatological medicines and empiricism, and in an irrational confidence, all of which thrived here on account of the peace and relative contentment of our people. Except for the Indian Wars there was nothing to arouse them or urge them to develop their talents. The Royal Society of England had two members in the Corporation of Harvard where the English teaching was

* The only copy of this paper now extant is in the possession of the Massachusetts Historical Society, Boston.

followed. Fewer graduates of Harvard were going to Europe, and the practice of medicine was chiefly in the hands of the third generation of physicians trained by their fathers, or other preceptors, which produced a routinism and less than mediocrity. Green says (Centennial Address) that there were but nine graduates of Harvard who had ever received a medical degree between the founding of the College and 1750. Five graduates between 1737-1750 received the degree M. D. from the College later, *pro honoris causa*. They were Holyoke, Tufts, Sprague, Bulfinch, and Oliver Prescott. As early as 1647 the Apostle Eliot expressed the desire that "Our young students in Physic may be trained up better than yet they bee, who have onely theoretical knowledge and are forced to fall to practise before ever they saw an anatomy made, or duly trained up in making experiments, for we never had but one anatomy in the country, which Mr. Giles Firmin (now in England) did make and read upon very well, but no more of that now." * Firmin came to this country in 1632, having been educated at Cambridge, where he probably studied medicine. Green is inclined to think that Firmin lectured upon anatomy at Harvard, and he bases this opinion no doubt upon the description of Harvard College by Johnson in his "Wonder Working Providence," written about 1650, and published in London, 1654, in which we read: "Some help hath been had from hence in the study of Physick." † On October 27th, 1647, the General Court Records state: "We conceive it very necessary yt such as studies physick or chirurgery may have

* Mass. Hist. Coll., third series, iv. 57.
† Page 165.

liberty to read & to anatomize once in four years some malefactor in case there be such as the Courte shall alow of."

Such were the conditions at the opening of the eighteenth century, a period destined to awaken true American energies. There had been many epidemics of various diseases widespread and severe among the Colonists during the seventeenth century, but none had the importance of the smallpox epidemic of 1702. Terrible are the accounts of the disease among the earlier settlers, yet from that last epidemic a very important event was to originate. It is probable that inoculation had been practiced in Europe, Asia and Africa, but it was not until 1721 that its use was noticed in England. In that year Lady Mary Wortley Montague returned from Constantinople and reported her observations upon the results of *engrafting*, an operation to which she had subjected her son, and wished to repeat upon her daughter. This was done, and at the same time reports of inoculation by Timonius and Pylarinus in Turkey were published in the " Philosophical Transactions," printed in London. These attracted the attention of Cotton Mather, in Boston, Massachusetts. He prevailed upon his friend Dr. Zabdiel Boylston to try the experiment, which he accordingly did upon his thirteen year old son and two negro servants. This was June 27th, 1721, just two months after Mr. Maitland had inoculated Lady Montague's daughter in England, a fact unknown to Boylston.

So great was the controversy over this question that the principal characters call for more than passing notice. To the Rev. Cotton Mather belongs without dispute the credit of the introduction of inoculation into this country. The other characters in this affair were William Douglass, Zabdiel Boylston

and Lawrence Dal 'Honde:—Mather and Boylston fighting for inoculation, Douglass and Dal 'Honde fighting against it. Dal 'Honde was the preceptor of Ezekiel Hersey, founder of the chair of Anatomy and Surgery at Harvard (1770), and one of the first to offer himself for inoculation. Mather was the son of Increase Mather, president of Harvard College 1685-1701, and was born in Boston in 1663. He was graduated from Harvard in 1678, was a fellow of the Royal Society and died in 1728. Douglass was born in Scotland about 1690, and was graduated in medicine. He traveled extensively throughout Europe, the West Indies, and America, arriving in Boston in 1718. He wrote much on smallpox, and the epidemic of diphtheria, or scarlet fever, which prevailed in Boston in 1735-6. This was published in 1736, was republished in 1825, and was pronounced one of the best works extant upon the subject. He was unfortunate in combining unscrupulousness and conceit with his learning and abilities.

Zabdiel Boylston was born in Brookline, Massachusetts, in 1684; his father had had the degree M. D. from Oxford; the son studied medicine with his father, and also with John Cutter.* He became noted in the studies of natural history and botany. At the eventful period 1721 he was practicing in Brookline, and readily grasped the opportunity offered him by Mather, after Douglass and others had refused to listen to the minister's presentation of the recent publications upon inoculation. He may justly be considered one of America's most noted physicians. His death occurred 1766. According to

* Zabdiel Boyleston of the class 1724 was a son of the inoculator.

Woodville, Boylston was the first to discover that the incubation period was shorter in inoculation than in smallpox.†

Lawrence Dal 'Honde was a Frenchman who had had a long career with the French Army. He was practicing in Boston at the time of the controversy, and was prevailed upon by Douglass and others to make a deposition showing the uselessness of inoculation, which he said he had seen practiced in 1696 and 1701 while serving in the army in Italy, Flanders, and Spain. This deposition was the means of getting through the Massachusetts House of Representatives a bill prohibiting inoculation, but the bill never became law. Few writers pay Dal 'Honde much respectful consideration. One other person merits notice on account of his activity on the side of the anti-inoculationists, although he repented later, namely Benjamin Franklin. The future philosopher was then fifteen years old, and worked on "The New England Courant," edited in Boston by his elder brother James. Thus it was that one of the greatest medical blessings to humanity was first suggested, then urged, then defended, and finally established through the zeal, courage and honesty of one of the ministry.

In these later days we may witness the results of disagreement in the medical profession, but seldom has there been witnessed such a storm of abuse, bitterness and persecution as that against which Boylston had to contend in 1721;—opposed by almost every member of his profession, with the only regularly graduated physician then in Boston as leader (Douglass); with the press exciting and bedeviling the already superstitious popular mind; with little or no evidence, especially clinical, to

† Packard, p. 81.

substantiate his claims; with civil authorities aroused to active opposition; scorned, scoffed at and laughed at by his former friends and associates; with a wild mob carrying halters ready to hang him, patrolling the town; with his house attacked, we find the brave physician calmly submitting his thirteen year old son to the test, for it is probable he himself had had small-pox (Mumford), "well remembering the destruction the small-pox made nineteen years before when last in Boston, and how narrowly I then escaped with my life." * Truly there was a man worthy of the highest praise. Let the following account given in "The Boston News-Letter," November 20th, 1721, serve as a type of the articles being written against Mather and Boylston: "When the Granado was taken up there was found a paper so tied with a Thread about the Fuse, that it might outlive the breaking of the shell, where in were these words: Cotton Mather, I was once one of your meeting, But the cursed Lye you told of—you know who; made me leave you, you Dog, and Damn you, I will enoculate you with this, with a Pox to you."

Boylston inoculated two hundred and forty-seven persons, and of this number only six died, while out of the five thousand seven hundred and fifty-nine persons who took the disease in the natural way during the same period eight hundred and forty-four died. Others began to make use of the new method, and gradually the favorable results became more and more apparent, until the fickle populace grew as extreme in their laudation as they had been a year before in their denunciation. The controversy was as violent in London as in America.

* Boyleston's account of Small-Pox, published 1726.

This was Boylston's innings. He was invited by Sir Hans Sloan, physician to George I, to demonstrate his method of inoculation and tell the results of his work. This he did, much to the annoyance and confusion of Wagstaffe and others. Some writers even claim that he inoculated Princess Caroline and other members of the Royal Family, for which he received one thousand guineas from the King. He was chosen a member of the Royal Society, the first native of America to be so honored, and read a paper before that body upon smallpox inoculation in New England. This was published in London in 1726, and was dedicated to the Princess of Wales. A second edition of this book was published in Boston in 1730. Time conquers many things. So it was with the bitterness of feeling over inoculation, many of its most rabid opponents becoming in time its staunchest advocates, Douglass and Franklin among them.

True to the rules so often observed throughout history, controversy and opposition frequently bring forth abundant good fruit. The inoculation rivalries of the eighteenth century were no exception. The troubles in Massachusetts were but the incentive in other Colonies, and we find Pennsylvania, New York, Connecticut and Rhode Island soon involved in the same bitter discussion.

Benjamin Franklin, now a strong advocate of inoculation, as well as a firm believer in the necessity for hospitals, became the champion of the bill introduced into the Pennsylvania Assembly by Thomas Bond, Phineas Bond, and Lloyd Zachary for the establishment of a Hospital in Philadelphia. It was entirely through the efforts of Franklin that the bill passed, February 7th, 1751, thus creating the Pennsylvania Hospital,

the first in America; and made the College of Philadelphia, now the University of Pennsylvania, possible at such an early date as 1765. John Warren, Prescott, John Clark, and Gardiner in Massachusetts; Colden, John Bárd and Peter Middleton in New York; Thomas Cadwalader, the Shippens, the Bonds, Morgan and Rush in Pennsylvania, and William Hunter in Rhode Island, were aroused to activity. Hospitals, medical schools and societies were founded and fostered, and there developed a new era in the science of America. All this had an important bearing upon the status of medical education in this country. Up to this time there had been no medical schools in the colonies, there had been scarcely anything worthy of the name hospital, certainly no foundation to which medical students could attach themselves for the purpose of study. The majority of students were apprentices to physicians. Those who could afford the luxury went to Europe. Morton in his History of the Pennsylvania Hospital says: "We find that the professional men of the seventeenth and eighteenth centuries were generally much better educated than most of their successors of the present time; almost without exception they were classical scholars. Their graduating theses must be written in Latin, travel was essential, notwithstanding the encumbered modes of motion to which they were subjected. Leyden, Paris, Edinburg, London, Oxford, Upsal, Bonn, and to some extent Vienna, Berlin, and the Italian Schools received and honored them; they, as a rule, by their subsequent career equally honoring the places which they visited, and where they sojourned. They were also men of affairs. It is surprising what a part they took at home in politics (in its broad sense) and government. They were good soldiers, and freely

offered themselves and their services to their country in the time of need." * The above mentioned physicians were gradually drawn together by the events of the following years, and the friendships formed ripened into matured fruit during the War of 1775-1783.

As early as 1764 evidences are found showing that the College authorities at Harvard had in contemplation the establishment of a medical school in connection with that institution. On January 24th, 1764, the library building of the College was destroyed by fire. The general court of Massachusetts was holding its sittings there at the time, on account of the epidemic of smallpox in Boston. "The Boston Post-Boy and Advertiser" for January 30th, 1764, mentions among the losses "A collection of the most approved medical authors, chiefly presented by Mr. James, of the island of Jamaica; to which Dr. Mead and other gentlemen had made very considerable additions; also anatomical cuts and two complete skeletons of different sexes. This collection would have been very serviceable to a Professor of Physic and Anatomy, when the revenues of the College should have been sufficient to subsist a gentleman in this character."

Ezekiel Hersey, a graduate of Harvard, 1728, bequeathed one thousand pounds to Harvard in 1770, to be used for the founding of a Professorship of Anatomy and Surgery. In 1771 a number of undergraduates at Harvard who were interested in anatomy formed a society called "The Anatomical Society." † The establishment of the first inoculating hos-

* Packard, A. M. A. Journal, March 25, 1899.

† Mass. Hist. Soc. Coll., second series, vol. i, p. 105. Josiah Bartlett, 1810.

pitals in the neighborhood of Boston in 1764 marks the beginning of a grouping of the men who were to be the founders of the Massachusetts Medical Society, as well as Harvard Medical School.

The following advertisement in "The Boston Post-Boy and Advertiser" of March, 1764, gives the principal details of the administration of the hospitals together with the names of the physicians.

DR. SAMUEL GELSTON

"Gives this Publick Notice to his Patients in Boston and the adjacent Towns, that he had perpared (by Permission of his Excellency the Governor) all comfortable accommodations for them at the Barracks at *Castle-William*, in order to their being inoculated for the Small-pox under his immediate care.

"N. B. His Rooms are in that Part of the Barracks where the Patients of Dr. Nathaniel Perkins, Dr. Whiteworth, and Dr. Lloyd are recieved.

"Dr. Gelston and Dr. Warren reside at Castle-William Day and Night.

"All Persons inclined to go to the Barracks at Castle-William to be inoculated where Dr. Gelston resides, may apply to Dr. Lloyd at his House near the Kings Chapel, who will provide them a Passage to the Castle."

About four thousand persons received inoculation in the five weeks prior to April 1st, 1764, with a mortality of one in a thousand. By August 2nd of the same year the selectmen reported that there were but two cases in Boston. This decade before the Revolution marks an important change in the history of medicine in Massachusetts. Minister and Physician were no longer synonymous terms, medicine was now in the hands of those especially educated for that vocation. Here, too, was first seen the division of the medical practice into specialties, and we find physicians advertising the fact that they were specialists in inoculation. Apprenticeship was the

common way of acquiring a medical education, yet some few were going abroad, and on returning, were liberal in imparting the results of their observations and studies to their less fortunate brethren who were forced to remain at home.

Already the agitation started by Samuel Adams in his graduating thesis at Harvard in 1743 was beyond repression. Towns, villages and hamlets were vieing one with the other in supporting the principles formulated by their political leaders. In that momentous time one physician stands out prominently, Joseph Warren.

Out of our Revolution there was to be developed a new type of physician—the American physician. In the development of that character, the Harvard Medical School was to play an important part.

FIRST PERIOD

THE FOUNDING OF THE SCHOOL

1775 TO 1810

APPENDIX TO II.

EMINENT ALUMNI OF THE FIRST PERIOD.

CHAPTER II.

THE FOUNDING.

The founding of the Harvard Medical School in 1782-83 followed upon a widespread activity in medical controversies in Europe during the quarter of a century preceding the American Revolution.

There was the question of the priority of discovery of the true function of the lymphatics, involving William Hunter and Munro in a heated pamphlet war which was continued by the younger Hunter and the second Munro. This gave impetus to the study of anatomy and did much to establish comparative anatomy as a new science. Then Haller, following the course of his teacher, Boerhaave, laid claim to the discovery of the irritability and contractility of animal fibres, a claim Whytt maintained for his school of Edinburgh, with the result that physiology went forward many paces. Priestly, Lavoisier, and later Davy, brought chemistry's gift to medicine in a clearer knowledge of the respiration, while the disputes of Leeuwenhoek and Buffon gave a prominence to microscopic conditions all new to the century. Some gain doubtless was made, notwithstanding the fact that we find John Hunter beginning his lectures in 1784 thus: "Respiration we cannot explain; we only know that it is *in fact* essential and necessary to life, and *if ever* we should be happy enough to find out clearly the object of this function, we shall doubtless, as clearly see, that *this organ* is as wisely contrived for an important

[illegible] importance of the heart. [illegible] the circulation of the blood was [illegible] derived from us.* William [illegible] Fothergill and [illegible] Cullen the two Munros, Fergusson, Gregory, of Edinburgh and Linnæus in Upsala. [illegible] great stream of American students [illegible] year. These students mostly were from [illegible] where wealth existed [illegible] and where the [illegible] a taste for research in natural science. [illegible] surprised therefore, to read that in the list of graduates in medicine from the University of Edinburgh for the years 1768 to 1776 the names of sixty-three Americans appear. The only one of these was from the New England colonies. With the advantages thus acquired in Europe, and with a well established, though humble, hospital† we find Morgan, Shippen, Rush and Kuhn founding the first medical school‡ in this country, a scheme developed and fostered by their former teachers, Cullen and Fothergill. It was the prominence of this European influence perhaps which prompted the Pennsylvania legislature to repeal the charter of the College (1779) and confer all its powers and privileges upon "The University of the State of Pennsylvania." The fact which interests us especially is that Morgan, Shippen and their adjunct Rush inspired Hersey, Holyoke, as well as John Warren

* P. 287, Samuel Miller, A. M., "Brief Retrospect of the Eighteenth Century."

† Pennsylvania Hospital, founded 1751.

‡ College of Philadelphia in 1765.

and the other Harvard medical men with whom they came in contact during the Revolution, to promote lectures and societies, and ultimately a medical school in connection with Harvard College. While the formation of the first medical school and the establishment of a hospital were going on in Philadelphia, an American, William Hunter, was advertising through the Boston papers of 1754 and 1756 a course of anatomical lectures at Newport, Rhode Island. Hunter had been educated under the elder Munro, and was a contemporary of Cullen. Thacher, in his biography of Simon Tufts, says, "In the year 1765, a medical society was contemplated, and Dr. Tufts received a letter of invitation to assist in forming the institution; but the reason why the project was not then accomplished is not known." Josiah Bartlett in his address before the Massachusetts Medical Society in 1810* relates that "An association of under-graduates, denominated the Anatomical Society, existed at the University in 1771, and was established previous to that time. They held private meetings for a discussion of medical and physiological questions, and were in possession of a skeleton; but their demonstrations were confined to the dissections of appropriate animals, as the examination of the human body was then an extraordinary occurrence. * * *

"In 1774 attempts were made by a combination of medical students to obtain a more accurate knowledge of anatomy than could be afforded by books and engravings; but their progress was greatly retarded by the danger of discovery which, at that period might have been fatal to their future usefulness." It is unfortunate that no records of these societies have been

* Mass. Hist. Coll., vol. i, second series.

preserved. Perhaps the last quoted sentence of Bartlett explains the reason.

The experience of the Philadelphia teachers was yet remembered; the famous "Doctor's Mob" of 1788 in New York proved that precaution was necessary. However, like its predecessor of 1735-41, the first medical society of America, this students' society disappeared, and we find its place filled by the professional family of teacher and pupils,—providing a method of instruction which combined theory and practice to a degree not excelled by any method now in vogue. Of these professional families the most prominent ones connected with the founding of the Harvard School were those of Joseph Lloyd, Simon Tufts, and Joseph Warren. Let us learn something of them and their disciples.

Lloyd settled in Boston in 1752, after spending two years in Europe completing the medical studies begun here under Clark. He was a contemporary of John Hunter, and had studied under Cheselden, Sharpe, William Hunter, Smellie and Warner. It is not surprising, therefore, to find him introducing many new things in surgery and midwifery into New England. Cheselden's improved method of amputation by the double instead of the single incision, lithotomy, ligatures instead of scarification, and the rescue of the practice of obstetrics from the hands of midwives, were some of his novel-

es. That was a valuable person for medical students who re fortunate enough to gain an entrance into his family. exact list of the pupils who worked with Lloyd has been erved. Thacher mentions Joseph Warren, Isaac Rand, John Jeffries, John Clark, and Theodore Parsons, all grad- of Harvard College, and factors in the history of that

time. Lloyd's brother was agent of purchases at Boston for the British government for many years prior to the Revolution. Lloyd himself was appointed surgeon of Castle William, then a garrison station and depot for the King's troops. He became the successor of Boylston in the small-pox epidemic in Boston in 1764. In this he was aided by Warren, Rand and Jeffries. In his position as surgeon to the British garrison he was called upon to care for Sir William Howe, who was dangerously ill after the second Louisburg campaign. When the British troops arrived in Boston in 1775 under General Howe, that officer renewed his acquaintance with Lloyd and gave him the medical supervision of the troops during the siege. The evident reflection of Lloyd's political sentiments is seen in the course of his pupils, Rand and Jeffries, both of whom entered the English service during the Revolution. Lloyd was granted one of the first diplomas of Doctor in Medicine given by Harvard (1790).

Isaac Rand, born in 1743, was graduated from Harvard in 1761. He was one of the two students from the senior class selected by Professor Winthrop to make observations at Newfoundland on the transit of Venus recorded in that year. His three years' study of medicine under Lloyd convinced him among other things that the country was not ready for separation from Great Britain. He remained in Boston during the siege, and was valuable as a medical practitioner, especially in small-pox cases. Rand was one of the founders and a president (1798-1804) of the Massachusetts Medical Society, and was an ally of Lloyd in establishing in this country midwifery as a part of medical practice.

The most distinguished and active of Lloyd's pupils who

did not agree with the popular view as to the expediency of war was John Jeffries. He was born in Boston in 1744, was graduated at Harvard in 1763, and was one of the few New England physicians of that date who studied in Europe. He received the M. D. at Aberdeen in 1769, the first American to be thus honored by that University; and the A. M. from Harvard in 1819. He was educated under Hunter, Smellie and Warner. Broussais considered him the leader of medical opinion in America.* In the small-pox epidemic of 1764, Jeffries was in charge of the small-pox hospital on Castle Island, then under Lloyd's command; while here four of his patients in their delirium escaped from the attendants and plunged into the channel. Jeffries, observing that their cold bath was beneficial, inaugurated the antiphlogistic treatment in the care of such patients, a practice since then universally accepted. In 1771 Admiral Montague, commander-in-chief of the British North American Squadron, appointed Jeffries assistant surgeon of a ship of the line, with a hospital on shore. This position he held until June 30, 1774, when the vessel changed its station.

Jeffries and Joseph Warren had been close friends ever since they were students together under Lloyd. The time had now come when separation was inevitable. The comradeship of these two men is described in the following letter from John Jeffries of Boston, a son of the elder Jeffries:†

"Dr. Warren had sent to my father a message to meet him secretly at mid-night at the end of the wharf of Charlestown ferry. He accordgly met him before the battle of Bunker Hill. Dr. Warren came over

* Holmes's Lowell Institute Lectures, Boston, 1869.

† Published in "Boston Medical and Surgical Journal," June 17, 1875.

in a small boat with muffled oars. His object was to induce my father to unite with the Continental Army as a surgeon. This he urged upon him, offering him great inducements to accept. The reply was, 'I thought Warren that you knew me better. I would not take office under anybody. My motto is '*Aut Caesar aut nullus.*' Warren then said, 'Don't be so quick Jeffries; I have a general's commission in my pocket. We want you to be at the head of the medical service.' The offer however was declined. * * * On the morning of the 17th of June as my father was reading a small newspaper in the parlor of the house where he resided * * * General Howe entered and said: 'Dr. John I am told that the rebels have thrown up some works last night on the hill over the water, I shall send troops over to drive them off, would you like to go with me to see it?' He subsequently accompanied the General to Copp's Hill from which there was a full view of the incidents that transpired. After the capture of the redoubt, General Howe came to my father as he was dressing a wounded officer on the beach, saying: 'It is reported that Dr. Warren is killed; do you know him, Jeffries?' 'Yes Sir, as well as I know you.' 'Come with me then.' After going a short distance, Howe put his arm before him to stop him and asked 'How shall you know him?' The answer was 'He had one of the upper incisor teeth broken off obliquely in early life, and he has also lost part of one thumb from a felon.' As soon as they had passed through the fort the body was seen, and my father exclaimed 'That is Warren!' He was lying on his face, his head downward, where the hill was steep. On examination a wound was found on the back of the head, made by a bullet."

When the British evacuated Boston, Jeffries accompanied them to Halifax, where Howe made him surgeon-general to the forces in Nova Scotia. In 1778 he was appointed purveyor-general to the hospitals, with the rank and pay of apothecary-general. Later, while in England, he was appointed surgeon-major to the forces in America. That was a newly created office, and he underwent a rigid examination by John Hunter and others. He joined Clinton's command in Charleston, South Carolina, but in 1780 was transferred to New York as head of the surgical department. Again returning to England, he was selected as head of the medical staff about to embark for India (1781). This appointment he declined, and

settled in England, where he soon gained Royal favor. About this time he began experimenting in aerial navigation. The second of his aerial voyages (1785) was from the cliffs of Dover into the forest of Guines, in the Province of Artois, and was the first successful attempt to cross the sea *par la route de l'air* (Thacher). These ventures brought him the favor of the King and Queen of France, and the Duke of Dorset, the British Ambassador, and were the means of introducing him to the scientific societies of Paris. The results of the experiments were read before the Royal Society of England. Returning to America in 1790 he settled again in Boston, where he practiced surgery, medicine and midwifery. Thacher tells of his giving the first public lecture on anatomy, delivered in Boston (The Harvard Medical School was then in Cambridge). "It was, however, but a single one; for on the second evening a mob being collected, entered his anatomical room and carried off in triumph his subject, which was the body of a convict given him by the Governor after execution." (Thacher.) He kept for more than forty years a surgical diary of all important cases, a medical diary of all serious affections, a history of nearly two thousand cases in midwifery, and a meteorological journal noted three times a day. These he found most useful in the education of the large number of students under his care; he died in 1819.

Simon Tufts was born in 1726, was graduated from Harvard College in 1744, and studied medicine under his father, whose practice he assumed upon the latter's death. In 1766 the future Governor of Massachusetts, John Brooks, then fourteen years old, was apprenticed to Tufts for seven years, as was the custom of the day, his fellow pupils being the

future Count Rumford and Cotton Tufts. Thacher says of Brooks: "His progress in medical science and in judicial practical observation was such as to secure the confidence and respect of his master during his pupilage." War was too near and Brooks's "judicial practical observation" too far advanced to hold him to medicine, so he laid it aside for the duties of war and state, which he performed with credit to himself and honor to his foster Alma Mater. From the first attack upon the retreating British at Concord, Brooks's rise was steady and marked. At White Plains, Saratoga and Monmouth he was promoted major, lieutenant colonel, colonel, and adjutant general for his heroism and perfect discipline. At that critical time for Washington, in March, 1783, when conspiracy and calumny came so near to sacrificing the cause as well as the man, Brooks was one of his chief's staunchest supporters and friends, a fidelity Washington fully appreciated. At the close of the war Brooks returned to Boston in order to take over the practice of his old tutor, whose advanced life made professional duties burdensome. The State claimed his service in its various legislative departments, and in 1816 he was elected Governor of Massachusetts. In the medical society of his state he was conspicuous both as an advisor and as a contributor to literary advancement. At his death in 1825 his valuable medical library became the property of the Massachusetts Medical Society. Harvard College conferred on him the degree A. M. in 1787, and M. D. Hon., 1810, and LL.D. in 1816.

Cotton Tufts was graduated from Harvard in 1749; he was connected by marriage with John Adams. His tastes were literary and scientific. He was one of the founders of the Massachusetts Medical Society, and its President from 1787-95.

He was an incorporator (1780) of the American Academy of Arts and Sciences. This Society had ten medical practitioners, on organizing, and it is due to their efforts that its charter provided for the advancement of medical science. In the duties required by the State, Tufts used his pen rather than his sword, and history says he did well. As President of the Derby Academy he did much to establish on a firm basis that early seat of learning. He died in 1815.

The last of the principal medical teachers in Boston prior to the Revolution was Joseph Warren. His was a most versatile character. Whenever the American Revolution is mentioned, the figure of Joseph Warren rises in the imagination. Fearless yet cautious, defiant yet courteous, true, honest, and courageous, combining the genuine qualities of the leader, ready and able with tongue, pen and sword to serve his country in the hours of her deepest trials until at length

> "Living, the oak-leaf wreath his temples bound,
> Dying, the conqueror's laurel was his meed,
> Last on the broken ramparts turf to bleed
> Where Freedom's victory in defeat was found."*

He was born at Roxbury in 1741, and was graduated from Harvard in 1759. We find him mentioned as early as 1764 in the inoculation practice of that year at Castle William Barracks. From that time his standing in his profession kept pace with his rise in the estimation and love of his fellow men. Thacher says: "His personal appearance, his address, his courtesy and his humanity won the way to the hearts of all, and his knowledge and superiority of talents secured the

* O. W. Holmes.

conquest." Young though he was, his house was recognized as a school. Early in his professional career we find his practice serving as a training school for such physicians as John Warren, his younger brother, who concerns us much as the founder of the Harvard Medical School; for William Eustis, Samuel Adams, Lemuel Hayward, David Townsend and Robert Williams, all Harvard graduates, and men who became distinguished for patriotism, public service and professional skill. This medical course was for two years, and embraced the duties of apprenticeship but not its binding contract. The student was required to spread plasters, and act as general utility man in the "Medicine Room," as well as responsor to night calls. Books for study were few, but bedside teaching was abundant, and Warren's practice offered the best. In his early days no American College had the right to grant the degree M. D., so that title unless acquired abroad, was given wholly by courtesy. Surrounded by every advantage of professional, social, and political preferment, a man of less patriotic zeal and impulse would have thought himself fortunate in Joseph Warren's position. With him, however, political liberty was a principle and not a policy, and its accomplishment was a duty paramount to all selfish aims. Gifted with oratorical powers beyond the ordinary, we find him privately enlightening his countrymen as to their rights and privileges, or advocating in public preparation for the maintainance of their rights. Witness one of his letters to Governor Barnard in 1768: "It is our unalterable resolution at all times to assist and vindicate our dear and invaluable rights and liberties, at the utmost hazard of our lives and fortunes; and we have full and rational confi-

dence that no designs formed against them will ever prosper." * He was easily the choice as orator on the anniversary of the "Massacre," the recitation of which is so graphically given by Thacher. In advance, as he was, of public opinion upon the questions of the day, he was still more so in anticipating and forestalling the designs of his country's oppressors. He started Paul Revere on that famous ride. He placed his patients under the care of his student, young Eustis, and hastened to the assistance of his brother patriots at Lexington, as a private in the ranks rather than in the position of leader assigned to him by common consent.

Joseph Warren's day book † throws much light upon this fascinating man. As his patients there appear Hancock, "Speaker Cushing," John Adams, and Josiah Quincy, contrasting with "he that married Bryant in damnation alley." and "Cato, negro, Temple St." His average fee was three shillings, which always included medicine. His largest was for a midwifery case, £ 1 s. 8. For amputating a thigh £4. was charged. His prescriptions read thus: "℞ Rh. ℥i, Senne ℥iss, manne ℥i, sal Mirab ℥i, Anne seed a thimble full, Aquae com ℥ij, coq. ad ℥iv." On his busiest days he averaged from twelve to twenty entries. On April 19th, 1775, there is one entry showing that he left town early on that memorable date. Contrary to the usual version that he did not return to Boston after the Lexington fight, his day book shows that he made several visits next day in Temple street. The record ends May 8th.

* "Hist. and Antiq. of Boston," Samuel G. Drake, A. M., p. 741.
† "Boston Med. and Surg. Journal," June 17, 1875.

Warren enjoyed the confidence and respect of the leading physicians of Boston at that time, notwithstanding the fact that almost without exception they differed with him upon the great questions then agitating two continents. This he did without deceit, and without sacrificing any of the principles so openly and fearlessly advocated. Bancroft writes of him as exhibiting "A rare combination of gentleness with daring courage, of respect for law with the all controlling love of liberty." He still believed that reconciliation was possible and even desirable, yet wisely did not neglect to prepare himself and the people for a conflict. His letter to a friend after the capture of Ticonderoga,—a letter which gave Gage his first knowledge of that event,—shows Warren's wisdom and conservatism. "Thus a war is begun, which I have frequently said to you and others would, if not timely prevented, overturn the British Empire; but I hope, after a full conviction both of our ability and resolution to maintain our rights, Britain will act with that wisdom which is so absolutely necessary for her preservation; this I must heartily wish, as I feel a warm affection still for the parent state; May 7, 1775."*

Joseph Warren was elected president of the Provincial Congress in 1774, in recognition of his abilities and statesmanship. It was here that his extraordinary powers of mind were exhibited. His letters, songs, and addresses are full of council, wisdom, inspiration and patriotic zeal. While attending to organizations at home, he kept Quincy, Lee and Franklin, then in London, thoroughly informed of the course

* "The Writings of George Washington," vol. iii, p. 510.

of events. At the daily adjournment of Congress he mounted his horse and quickly reached the camp, where he soon became a well known figure, fitting himself for military duty, even to the extent of quitting his profession. He was made major general of the Massachusetts forces, after having refused the office of physician general to the army. Delayed by the session of Congress, he did not reach Bunker Hill until the contending forces had begun that famous battle. The veteran Prescott offered to relinquish command of the troops, but Warren preferred to act in the ranks as a private,—a course which would have borne greater fruit had he survived. Fate decreed otherwise; he was shot dead, as he was slowly following his associates over the breastworks before the advancing charge of the British.

Thus ended a brilliant and creditable life; for Warren was a worthy representative of Harvard, and was the leader as well as the teacher of that group of physicians whose minds were turning towards the formation of a suitable medical school. The importance of a better education, especially in surgery, soon became apparent. Medical men from all the colonies, intermingling in the camps, in the hospitals, and on the field, learned to know each other better; and, while there were the usual jealousies and personal self-seeking incidental to the conditions existing at that time, the benefit to medical science was notable above all else. In this result no small part was due to the French surgeons who accompanied their troops to this country.

The conspicuous part played by Harvard Alumni during the American Revolution and subsequent years forms a proud chapter in Harvard history, and in all this the Alumni

who were in medicine had a large share: so it is appropriate here to record those graduates of Harvard College who were practicing in the Colonies at the beginning of the War for Independence. There were about three thousand five hundred practitioners of medicine in the British American colonies; —of these not more than four hundred had received medical degrees.* Of the physicians present at Lexington, Concord and Bunker Hill, the following had been graduated from Harvard College: Joseph Warren (1759), John Warren (1771, 1786, M. D. Hon.), Benjamin Church (1754), William Eustis (1772), Thomas Welsh (1772, 1811, M. D. Hon.), Timothy Minot (1747), Oliver Prescott (1750, 1791, M. D. Hon.), Martin Herrick (1772), David Townsend (1770, 1813, M. D. Hon.), Samuel Tenney (1772, 1811, M. D. Hon.), William Aspinwall (1764, 1808, M. D. Hon.), Miles Whitworth (1772), Marshall Spring (1762, 1807, M. D. Hon.), Timothy Childs (1811, M. D. Hon.), Thomas Kittredge (1811, M. D. Hon.), John Brooks (1810, M. D. Hon.), John Homans (1772), Samuel Adams (1770).

Rather a long list, yet in those days the uprising was local. The fact of having eight men killed at Concord was a family affair, and the people were animated in no small degree by the spirit of revenge. They naturally looked to their doctors to go with them to the war, and in this they were not disappointed. The doctors had been looked upon as among those well able to conduct the affairs in congress.† Later the following Harvard graduates entered the army as surgeons: Thomas Bul-

* Packard, p. 156.

† Mumford gives a list of twenty-two physicians who served in the Massachusetts Provincial congress of 1774-1775.

finch, Jr. (1746, 1790, M. D. Hon.), Nathaniel Perkins (1734), Jonathan Perkins (1738), Benjamin Curtis (1771), Thomas Kast (1769), Robert Roberts (1771), James Pecker (1743), Nathaniel Appleton (1773), Charles Jarvis (1766), John Sprague (1772), James Thacher (1810, M. D. Hon.), Daniel Shute (1775), Robert Williams (1773), Walter Hastings (1771), Samuel Woodward (1776), John Barnard Swett (1771), Ammi Cutter (1752), Aaron Dexter (1776), John Flagg (1761), Lemuel Hayward (1768, M. D. Hon. 1808), William Eustis (1772), Henry Adams (1775), David Cobb (1766), Ebenezer Crosby (1777), Abijah Cheever (1779), John Crane (1780), Lemuel Cushing (1767), John Thomas (1765).

The not over-pleasant history of the medical trials and vicissitudes of the Continental army does not concern us in this work except in so far as it serves to introduce medical practitioners who were graduates of Harvard. Fortunate indeed it was that the opening scenes of the war occurred in Massachusetts. Here was to be found the only readiness, and that was slight, for caring for the health and comfort of any body of troops. In this state only was an attempt made to furnish surgeons fit for their work. Of the volunteer physicians who served their countrymen at Lexington, Concord and Bunker Hill, much can be said.

William Aspinwall was graduated from Harvard in 1764 and received his M. D. Hon. from Harvard, in 1808. On the outbreak of hostilities he applied for a commission in the army, but was persuaded by Joseph Warren to give his services to the medical department, where as surgeon in General Heath's brigade he afterwards rendered valuable aid. At the

battle of Lexington he was very active. Aspinwall acquired great skill in the treatment of smallpox by inoculation, and for many years conducted a hospital at Brookline, Massachusetts, for that purpose. When vaccination was introduced, Aspinwall, with true scientific spirit made a thorough investigation of its claims, and readily acknowledged its efficacy notwithstanding the fact that its adoption meant the loss of his hospital receipts. Waterhouse says of him:

"The late Dr. Aspinwall, a man of great sagacity and uncommonly well grounded in the principles of his profession, gave evidences of it on the first sight of vaccine pustule. I had invited all the elder physicians of Boston and the vicinity of Cambridge to see the first vaccine pustules ever raised in the New World. They gave them the ordinary inspection of an unusual eruption on the skin;—all but Dr. Aspinwall, whose attention was riveted on the pustule, its areola and efflorescence. * * * Some time after I gave him a portion of the virus to make his own experiments and observe the progress of its inoculation and coincidence of the constitutional symptoms. * * * To crown the whole of his honorable conduct, he some time after took all those of my family whom I had vaccinated into his smallpox hospital, the only licensed one in the State; and there tested them to his satisfaction, and one to the very verge of rigid experiment; and then he said to me and others: *'This new Inoculation of yours is no sham. As a man of humanity, I rejoice in it, although it will take from me a handsome annual income.'* His conduct throughout was so strongly marked with superior intelligence, generosity, and honor as to excite my esteem and respect; * * * a gentleman respectable in public life as a counsellor, and an honor to his profession as a physician."

He died in 1823.

Thomas Welsh was graduated in 1772, served as surgeon in the Twenty-seventh Continental Regiment, settled in Boston after the war, was attached to U. S. Marine Hospital at Charlestown; quarantine physician at Port of Boston; consultant physician to the City Hospital and Medical Dispensary; incorporator of Massachusetts Medical Society, and its Vice-

President 1815-1823; Treasurer 1783-1798. He delivered the annual discourse in 1807, and presented other valuable communications before that body. He received the M. D. (Hon.) in 1811, and died in 1831.

Timothy Minot was graduated in 1747, and was practicing at Concord, Massachusetts, when the yoemen rushed to arms; he went with them and no doubt did his humble part well. He died in 1804.

Oliver Prescott received his first degree from Harvard in 1750, studied medicine under Roby of Sudbury (a former pupil of Boerhaave), after which he settled in Groton, Massachusetts. So extensive and laborious were his professional duties that he was often forced to recruit his strength on his long travels by sleeping while on his horse. He naturally took an active part in the Revolution, and was present at Bunker Hill, where his brother, Colonel William Prescott, was such a conspicuous figure. Under the King he had been a major, lieutenant-colonel, and colonel of Massachusetts militia, and in 1775 was elected by the Massachusetts Supreme Executive Council, brigadier-general of the militia for the county of Middlesex. This office carried with it the duty of preventing all communication between the besieged city and the British sympathizers without. In 1776 he was a member of the Board of War, and served as member of the State Executive Council from 1771 to 1781. In 1778 and 1781 he was major-general of the Massachusetts militia. On the death of John Winthrop in 1779, Prescott was appointed his successor as judge of wills, etc. As a Fellow of the American Academy of Arts and Sciences his influence was beneficial to the advancement of the interests of medicine. He was the first president of the

Groton Academy, as well as one of its first trustees. In 1791 Harvard conferred upon him the M. D. (Hon.) degree. He died in 1804.

David Townsend (after his graduation from Harvard in 1770) was a student under Joseph Warren. He served under General Whitcomb after the battle of Bunker Hill, where he had assisted in caring for the wounded. In 1777 he was appointed senior surgeon of the General Hospital of the Northern Department, and served to the end of the war. His M. D. was honorary in 1813.

Samuel Tenney was graduated in 1772, after which he studied under Kittredge of Andover, Massachusetts. He had just started in practice at Exeter, New Hampshire, when word of the Bunker Hill fight reached the town. Hastily mounting his horse, he rode to the scene, and, although greatly fatigued by the long ride, he worked until late at night caring for the wounded. During the first year of the war he was mate to Eustis, but later joined the Rhode Island Line, serving as surgeon until the end of the war. He did not resume the practice of medicine but entered public life. In 1788 he was a member of the convention for forming the constitution of the State of New Hampshire. From 1793 to 1800 he was judge of probate, after which time he became a member of Congress. He received the M. D. (Hon.) in 1811. He was a member of the American Academy of Arts and Sciences, and an honorary member of the Massachusetts Medical Society (1805). His studies of the mineral springs at Saratoga published in 1793 was the means of bringing those waters into public notice. His literary and philosophical writings were many, and have been

preserved by the Massachusetts Historical Society. He died in 1816.

Miles Whitworth was graduated in 1772. He was practicing in Boston during the siege, and was the attending physician to the American prisoners wounded at Bunker Hill. Those prisoners were thrown into jail with scanty provisions, and many died, among them Lieutenant-Colonel Parker. Whitworth was made the scapegoat for these inhumanities and suffered much loss of practice in consequence. He died in 1778.

Marshall Spring was graduated in 1762, studied medicine, and had the luck to win the confidence of the people early in his career. This he did in a way not wholly unlike the method of some latter-day quacks. He gave his services at Lexington, but was shown to be strongly "Tory" in his tendencies on being brought before the "Committee of Safety" to explain his conduct. It is said the only thing that saved him from expulsion from the country in 1776 was "the exigencies of the ladies." Harvard gave him M. D. Hon., 1807.

Timothy Childs entered college in 1764, but was obliged to leave on account of lack of funds. He received the M. D. (Hon.) in 1811. In 1774 he joined the minute-men and went to Boston after the Lexington fight. He was appointed surgeon in Colonel Patterson's reigment, and served in the New York and Montreal expeditions. In 1777 he returned to his practice at Pittsfield.

Thomas Kittredge of Andover was appointed surgeon at Bunker Hill. John Warren said of him, "he had more natural skill as a surgeon than any other man in the country." Harvard gave him the honorary M. D. in 1811.

John Homans was graduated in 1772. He assisted in dress-

ing the wounds of those injured at Bunker Hill, and received his commission as surgeon on January 1st, 1776. He served until 1781; took part in the battles at Harlem and White Plains, and was present at the surrender of Burgoyne. After the war he settled in Boston, where so many of his descendants have been prominent in the medical profession. He was one of the founders of the Cincinnati.

Samuel Adams, Jr., was graduated in 1770, after which he studied medicine under Joseph Warren. He had been practicing in Boston one year when hostilities began. With the same patriotic spirit that his father manifested, he hurried to Lexington, where he assisted his wounded compatriots. He served throughout the war, a course which hastened his death. He died in 1788.

Thomas Bulfinch, Jr., was graduated in 1746. He went abroad and studied four years in London and Edinburgh. At the latter place he received the M. D. in 1757. In the smallpox epidemic in 1763 he was associated with Joseph Warren, Gardiner, and Perkins in the hospital at Point Shirley, Boston Harbor. During the siege he remained in Boston, suffering the loss of a large supply of medicines taken by order of Howe for the use of the British troops. His treatise upon yellow fever showed him to be a man much in advance of his time. He received the M. D. (Hon.) from his Alma Mater in 1790. He died in 1802.

Thomas Kast received his A. B. in 1769, and A. M. in 1774. He entered the British navy in 1770, and later studied two years under Warner and Mackenzie in London. On settling in Boston in 1774 he soon attracted notice as a bold operator. He is said to be the first surgeon in Boston to operate

upon aneurism of the femoral artery. His large and extensive practice in midwifery gave him much popularity. He died in 1820.

Charles Jarvis was graduated in 1766, studied medicine in Boston, and then went to England and France. On his return he advocated the use of fewer drugs, and more nursing and regimen. In this practice he was very successful. He was appointed by President Jefferson, Physician and Surgeon to the Marine Hospital at Charlestown, the first such hospital in the United States. His qualities of perception and keenness, as well as his fine appearance and good voice, made him a conspicuous figure in the legislature of his native State. His handsome head and acquiline nose gained him the soubriquet, " The Bald Eagle of the Boston seat," by which he was familiarly known. His advocacy of the cause of the people in the French Revolution diminished somewhat his popularity before his death, which occurred in 1807.

James Thacher studied medicine under Hersey, and in 1775 applied for an appointment in the military hospital at Cambridge. In his " Military Journal " he gives an account of his examination for the position. This was in May, 1775, before Washington had taken command of the troops, and it marks the first attempt to improve the personnel of the medical corps.

" On the day appointed the medical candidates, sixteen in number, were summoned before the board for examination. This business occupied about four hours; the subjects were anatomy, physiology, surgery, and medicine. It was not long after that I was happily relieved from suspense, by receiving the sanction and acceptance of the board, with some acceptable instructions relative to the faithful discharge of duty, and the humane treatment of those soldiers who may have the misfortune to require my assistance. Six of our number were privately rejected as being found unqualified. The examination was in a considerable de-

gree close and severe, which occasioned not a little agitation in our ranks. But it was on another occasion, as I am told, that a candidate under examination was agitated into a state of perspiration, and, being required to describe the mode of treatment in rheumatism, among other remedies he would promote a sweat, and being asked how he would effect this with his patient, after some hesitation he replied, 'I would have him examined by a medical committee.'"

These examinations were in striking contrast to the haphazard manner of appointment adopted in the other colonies. In July, 1776, a hospital was established at Albany, and Thacher was assigned to service there. The building could accommodate five hundred patients, and had been used as a hospital in the wars between England and France. The Americans so used it after the battle of Crown Point and Fort Ticonderoga. On October 24th, 1777, after Saratoga, Thacher wrote:

"This hospital is now crowded with officers and men from the field of battle. Those belonging to the British and Hessian troops are accommodated in the same hospital with our men and receive equal care and attention. The foreigners are under the care and management of their own surgeons. I have been present at some of the capital operations and remarked that the English perform with skill and dexterity, but the Germans, with a few exceptions, do no credit to their profession; some of them are the most uncouth and clumsy operators I ever witnessed and appear to be destitute of all sympathy and tenderness towards the suffering patient. Not less than one thousand wounded and sick are now in this city; the Dutch Church and several private houses are occupied as hospitals. We have about thirty surgeons and mates, and all are constantly employed. I am obliged to devote the whole of my time from eight o'clock in the morning to a late hour in the evening, to the care of our patients. Here is a fine field for professional improvement. Amputating limbs, trepanning fractured skulls, and dressing the most formidable wounds, have familiarized my mind to scenes of woe. A military hospital is peculiarly calculated to afford example for profitable contemplation and to interest our sympathy and commiseration."*

* Packard, p. 277.

In 1808 Harvard conferred upon Thacher the A. M., and in 1810 the M. D. (Hon.), Dartmouth College doing likewise. Thacher was a Fellow of the American Academy, and was active in the formation of the Massachusetts Medical Society. He died in 1844.

Daniel Shute was graduated in 1775, entered the army as surgeon to the Fourth Regiment in 1782, and afterwards practiced in Hingham, Massachusetts. He died in 1829.

Robert Williams was graduated in 1773, studied medicine under Joseph Warren, and entered the army as ensign, serving as paymaster and first lieutenant. He died in 1834.

John Barnard Swett was a class-mate of John Warren (1771). While in his senior year he witnessed a post-mortem examination on the bodies of some persons who had met death through violence. This led to his adoption of medicine rather than the ministry as a profession. He thus abandoned an estate, the entail of which was contingent upon his choice of a profession. He had completed three years of study under William Cullen in Edinburgh, when the financial losses caused by the Revolution at home cut short his further study. He then entered the service of the merchant line of whaling and sealing vessels plying between Boston, London, and the Falkland Islands. The funds thus acquired enabled him to finish his studies in London and Paris. He returned to America in 1778. Entering the army under General Sullivan, he took part in the Rhode Island expedition, in which he lost his professional manuscripts, library and surgical apparatus, all of which had cost him much labor and money while in Europe. After he had settled in Newburyport (1780)

yellow fever swept the town, and Swett volunteered to assist in the care of the victims. In this he sacrificed his own life.

Ammi Ruhamah Cutter was graduated in 1752, and received the M. D. (Hon.) 1792. He was a pupil under Jackson of Portsmouth, and served as surgeon under Robert Rogers in the Indian wars of 1755. In 1758 he was appointed surgeon of the New Hampshire troops engaged against Louisburg. His father (Harvard, 1725) had served as chaplain in the previous Louisburg expedition of 1745. In 1777 Congress took hold of reorganizing the medical department, and Cutter was asked to accept the post of physician general of the Eastern Department. General Whipple, under date of April 15, 1777, wrote to Cutter thus:

"The army now forming will, I hope, under Heaven, free America from the calamities of a destructive war. The scenes of horror and distress occasioned by some mismanagement in the medical department last year, was really shocking to humanity. Congress being sensible of this, and determined to remedy the evil if possible, have formed a plan on the most liberal principles, with a design if possible to draw into the service of their country, gentlemen of the first eminence from different parts of the continent, many of whom have already engaged. Your humanity, and firm attachment to the most glorious cause that ever mankind was engaged in, will, I flatter myself, induce you to forego the pleasure of domestic happiness for a time, as you will thereby render a most essential service to your country."

Cutter left his "ten young children and an extensive and lucrative range of practice," and served for over a year. He died in 1820.

John Flagg was graduated in 1761, and studied medicine under Osgood of Andover. He served upon the Committee of Safety; and as lieutenant-colonel under Pickering was active in preparing for the war. He was one of the early

members of the Massachusetts Medical Society when that Society was limited to seventy members in the whole Commonwealth. He died in 1793.

Lemuel Hayward was graduated in 1768, and in the following year placed himself under the direction of Joseph Warren, his fellow students being, Adams, Eustis and Townsend. In June, 1775, he was appointed a surgeon in the general hospital in the Continental army, and served until the British had evacuated Boston. From 1776 Hayward and Isaac Rand, Sr., carried on inoculation until the latter's death, when the work was taken up successively by Davis, Aspinwall and John Warren, in company with Hayward. He was chosen corresponding member of the London Medical Society in 1781, and a member of the Bristol Medical Society in England. Harvard added M. D. (Hon.) to his titles in 1808.

Henry Adams was graduated in 1775, entered the army as surgeon in 1777, and served to the end of the war.

Ebenezer Crosby was graduated in 1777, then studied medicine at the University of Pennsylvania, where he received the M. B. in 1780. During the war he was appointed surgeon to General Washington's Guard, so that he became one of the Commander-in-chief's military family, and so served until the close of the war. In 1782 both Harvard and Yale conferred upon him the A. M. After peace was declared Crosby settled in New York, and in 1785 was chosen professor of Midwifery in Columbia College. He occupied this position until his death in 1788.

David Cobb was another Harvard man who became a member of Washington's family during the war. He was graduated in 1766, and had begun practicing medicine in Attle-

borough, Massachusetts. Closely associated as he was with Robert Treat Paine, we find him a lieutenant-colonel in 1777. In 1781 he was appointed aide-de-camp to General Washington, and left the service as brigadier-general by brevet at the close of the war. In 1784 Cobb was appointed judge of the court of common pleas. He was major-general of the Massachusetts militia from 1786 to 1793. It was during the tenure of these combined civil and military offices, that Cobb told the riotous mob of Shays's Rebellion that "he would sit as a judge or die as a general." In civil life he was Speaker of the Massachusetts House from 1789 to 1793; a member of the third Congress, senator in 1802, and lieutenant-governor in 1809. The College of New Jersey conferred the A. M. upon him in 1783, and Brown University the same degree in 1790. He was an active member of the American Academy of Arts and Sciences, and of the Massachusetts Medical Society. He died in 1830.

William Eustis, he "of polished and gentlemanly address," was graduated in 1772, and immediately commenced the study of medicine with Joseph Warren. The latter left his patients under Eustis's care when he went to Lexington, but the young student-physician was at the side of his teacher before noon, dressing the wounds of the injured patriots. Anxious to enter the army, Eustis wrote to Warren: "I will assist to the utmost of my ability in dressing the wounded. I see their distress, feel for them, and will relieve them in every way in my power." So he secured the position of surgeon of the regiment of artillery then in Cambridge. When the army was removed to New York he was appointed one of its hospital surgeons, refusing the commission of lieutenant-colonel of

artillery offered him by General Knox. It was here on the Hudson that Arnold hatched his scheme, and here too was enacted that hysterical scene painted by Thacher of Mrs. Arnold, with Washington and Eustis in the foreground. Eustis retained the friendship and confidence of Washington and Knox through the many changes experienced by the medical department, and was one of those selected by the former to confer with him at Newburgh in 1783, in relation to the inflammatory anonymous letters circulated at that period. After the Revolution he gave his services as surgeon to the expeditions organized to defend the frontier from Indian invasion, and later in quelling the insurrection under Shattuck and others. In 1788 Eustis entered the legislative branch of the General Court in Boston, and later served for two years in Governor Sullivan's council. Subsequently in Congress he was a staunch supporter of President Madison, and it was under this administration (1809) that he served as Secretary of War, retiring in 1815 to accept the post of Ambassador to Holland. From 1821 he served in Congress until the resignation of his fellow physician, Brooks, whom he succeeded as Governor of Massachusetts. Harvard honored him with the A. M. in 1784, and LL. D. in 1823. His death occurred in 1825.

The foregoing account represents in some small way the part played in those days by the physicians who were Alumni of Harvard University. The men were nearly all good men, and the little light we are able to get on their doings reflects credit alike upon their Alma Mater and upon their profession. Some few others there were, such as Samuel Danforth, A. M. 1758; M. D. (Hon.) 1790; a student of Rand. Like

Kast, he threw in his lot with the British. He was Aaron Dexter's preceptor, and was said to be "one of the most remarkable men this country has seen." Then there was Nathaniel Saltonstall, of the class of 1766, whose loyalty to his country's cause "separated him forever from those he most loved," and Micajah Sawyer, A. M. 1756, and M. D. (Hon.) 1793. There were men, however, more conspicuous than these, Benjamin Church and John Warren, upon whom we must dwell.

Church was graduated from Harvard in 1754. It does not seem clear where he received his medical training, nor does it appear that he ever was graduated in medicine. Previous to the Revolution, Church was a conspicuous figure. He had some genius, and was a writer of more than ordinary merit. He composed elegies upon the dead, and witty satires upon the living. In 1773 he was the orator at the "Commemoration of the Boston Massacre." Thacher says his address "discovers a rich fancy; it is certainly one of the best of the 'Boston Orators.'" As a skillful and dexterous surgical operator he was considered the best in New England; as a physician "he was in a career of distinguished reputation." He had the distinction of being the first to receive the appointment of surgeon-general of the American army. Whether this was due to his professional reputation, or to his close affiliation with the leading Whigs and patriots matters little. Elliot says: "This place was first offered to Dr. Warren, but he chose a more active scene and had a commission as major-general. Dr. Church was thought the next meritorious character for that station."

Church set about performing the arduous duties of his posi-

tion. In this he was closely circumscribed and not a little hampered. We have seen how some attempt had been made to raise the standard of the medical corps, but that helped little on account of the friction which soon developed between the hospital and regimental surgeons; an investigation was ordered with Church as the target. This was soon lost sight of in the discovery that the Surgeon-General, whom all had looked upon as a patriot, if not as a competent medical director, was holding secret correspondence by letter with the enemy. That was in October, 1775, and while an investigation of the hospital affairs was being conducted by General Sullivan. A council of war convened October 3, 1775, with General Washington presiding. Church's explanation of the letter was that it was "calculated to impress the enemy with a strong idea of our strength and situation in order to prevent an attack at a time when the Continental army was in great want of ammunition, and in hope of some speedy accommodation of the present dispute."*

Washington wrote the following report to Congress:

"I have now a painful, though necessary duty to perform, respecting Dr. Church, Director General of the Hospital. About a week ago Mr. Secretary Ward, of Providence, sent up to me one Wainwood, an inhabitant of Newport, with a letter directed to Major Cane in Boston in (occult) characters, which he said had been left with Wainwood some time ago by a woman who was kept by Dr. Church. She had before pressed Wainwood to take her to Captain Wallace, Mr. Dudley the collector, or George Rowe, which he declined. She then gave him a letter with a strict charge to deliver it to either of those gentlemen. He, suspecting some improper correspondence, kept the letter, and some time after opened it, but not being able to read it, laid it up, where it remained until he received an obscure letter from the woman, expressing anxiety after the original letter. He then communicated the whole matter to Mr. Ward, who sent him up with the papers to me. I immedi-

* American Archives, Fourth Series, vol. III.

ately secured the woman, but for a long time she was proof against every threat and persuasion to discover the author. However, at length she was brought to a confession, and named Dr. Church. I then immediately secured him and all his papers. Upon his first examination, he readily acknowledged the letter; said it was designed for his brother Fleming, and, when deciphered would be found to contain nothing criminal. He acknowledged his never having communicated the correspondence to any person here but the girl; and made many protestations of the purity of his intentions. Having found a person capable of deciphering the letter, I, in the meantime, had all his papers searched, but found nothing criminal among them. But it appeared on inquiry that a confidant had been among the papers before my messenger arrived. I then called the general officers together for their advice,—the result of which you will find enclosed. The deciphered letter is also enclosed. The army and country are exceedingly irritated; and, upon a free discussion of the nature, circumstances, and consequence of this matter, it has been unanimously agreed to lay it before the honorable Congress for their special advice and direction."

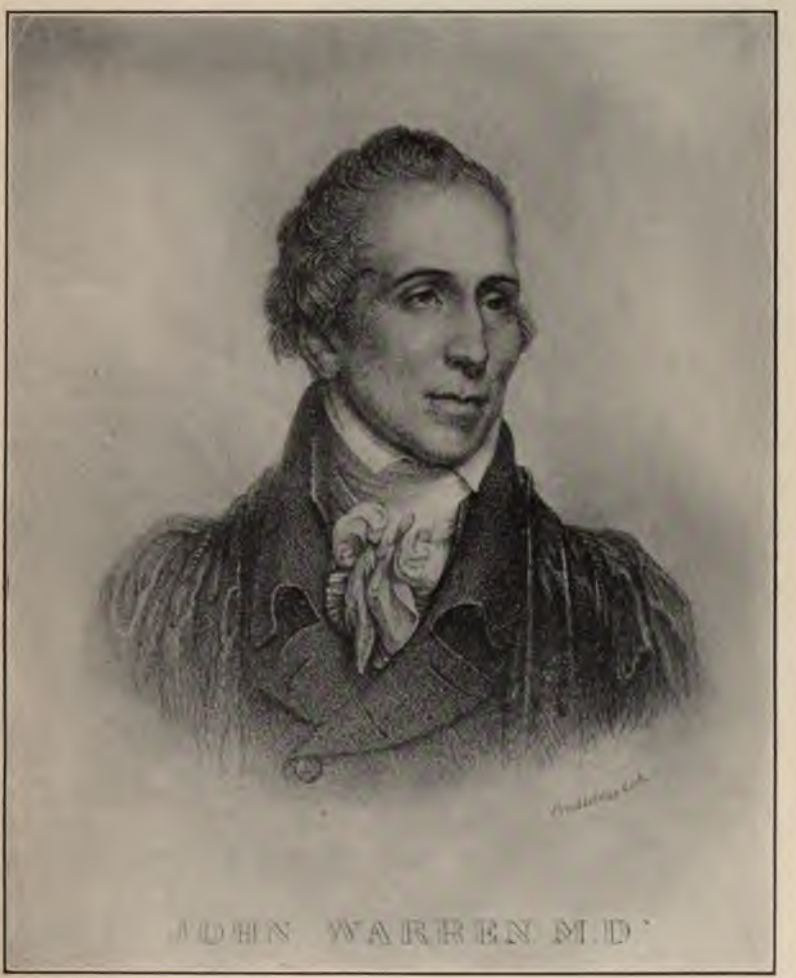
The Council was unanimous in judging Church guilty. Packard gives his defense in detail in an appendix to his " History of Medicine in the United States." Doubt exists as to the criminal intention of Church in writing the intercepted cipher letter. It was a time of jealousies and prejudices, and party zeal ran high. Church was expelled from the Assembly of Massachusetts, of which he was then a member; he languished a year or so in prison; was then liberated, and with his family sailed for the West Indies. Nothing was ever heard of the ship or its passengers after leaving port. It was supposed to have foundered at sea.

Church's position as director general and chief physician of the army was taken by one of the most distinguished physicians of his time, John Morgan, of Philadelphia. But ability, prominence, skill, and good faith could not prevail against inefficiency, jealousy, intrigue and mismanagement, especially at a time when the country had no Executive; when short enlist-

ments in the army were the policy of the Congress, when the troops were ill-disciplined and scantily supplied, when politics and not merit ruled, at least in the minor positions; and when many yet believed that Independence was neither desirable nor practicable. So at length Morgan was dismissed, but not dishonored. His "Vindication" well repays the reading. Morgan, together with Shippen, Rush and Kuhn, were elected honorary members of the Massachusetts Medical Society in 1787. Now the formative age of the Harvard Medical School is closely allied with that Society.

John Warren was graduated in 1771. After spending two years in medical study under his brother Joseph, he settled in Salem. Here he found a congenial spirit in old Dr. Holyoke. Warren was early a surgeon in Colonel Pickering's regiment, and was present at Lexington and at Bunker Hill. In his eagerness to reach the scene at Cambridge he endeavored to pass a sentry. The scar of a bayonet wound reminded him ever after of that meeting. Learning of the fate of his brother, he immediately volunteered as a private in the ranks. He was, however, assigned to the care of the wounded. Washington, arriving on July 3rd, soon gave his attention to the chaos then existing in the medical department. Warren, not yet twenty-two years old, was appointed senior surgeon of the hospital at Cambridge, his colleagues being Adams, Aspinwall, Foster and Hayward. Here he remained while the siege of Boston was maintained. When Church was deposed, Foster was temporarily in control, waiting the appointment of Morgan.

Warren's letter to John Hancock, dated October 9th, 1775, throws much light upon the state of affairs then embarrassing the medical department:



A. B. 1771; A. M.; M. D. (Hon.) 1786.
Hersey Professor Anatomy and Surgery 1782-1815.

"Sir,—At the request of a number of gentlemen employed in the American Hospital at Cambridge, I have been prevailed upon, though I cannot boast of the honor of a personal acquaintance with you, to assume the freedom of representing to your Honor as President of the Grand Congress of the United States some inconveniences under which we labor.

"The suspension of the late Director has put us into great confusion by reason of our not being able to acquaint ourselves with the particulars of the institution. We cannot obtain any information from him. We have been for some time past expecting warrants from the Continental Congress, but have not yet received them. We shall be extremely gratified by having them expedited to us, or some directions which might remedy the inconveniences we experience from the fluctuating state we are in at present. The gentleman above referred to informed us that he was about to write to the Congress recommending an additional appointment of two to the present number of surgeons, four only being already appointed, by which means it happens that two gentlemen at present officiate as chief surgeons at Roxbury under an uncertainty with regard to their continuance, and are very importunate either to be confirmed or receive a dismission. There are four houses here appropriated to the purpose of receiving the sick and wounded in Cambridge, by the names of Washington, Putnam, Lee and Convalescent Hospitals, all of which contain at present about 350 patients, being all the sick of the army in Cambridge, excepting such as are so slightly ill as to be attended with convenience in camp. The number is rather on the decrease, and but a small number have died. Three houses are improved for the same purpose in Roxbury. The number of sick and wounded I cannot ascertain. Those surgeons who are already appointed are stationed in the several houses in Cambridge. The two who stand candidates attend to those in Roxbury, * * * We cannot obtain information whether the appointments are to receive the sanction of the Congress, or whether the Director was invested with a discretionary power to make them without a necessity of their being ratified by any authority. The only person here from whom we could expect an answer to our queries is secluded from the whole world, and no person is admitted to an interview with him. * * * If your Honor can attend to the care of transmitting the regulations for the hospital to us at Cambridge speedily it will greatly conduce to the benefit of the public. In the interim, I am your Honor's most obedient and humble servant, JOHN WARREN."

When the British evacuated Boston, Warren was one of the first surgeons to enter the city. His sworn deposition of finding yellow and white arsenic mixed with the medicines left

by the enemy forms an interesting document among the records of that time. When the general hospital was transferred to New York (May, 1776), Warren was made senior surgeon of the hospital established at Long Island. Here began the professional career which has made his life memorable. The old dispute between the regimental and hospital surgeons was renewed: Warren wrote to Morgan thus:

"Respected Sir:—I yesterday called on your quarters, but you had gone out. * * * The orders begin by giving full latitude with regard to sending in patients that labor under putrid or infectious diseases to the regimental surgeons. Hospital surgeons are to have no negatives; but the latter can order none in without the consent of the former. * * * By these means regimental surgeons have the sole disposal (I think I may safely say) of all the sick in the whole army. As they have formed a plan for the annihilation of the general hospital, they will make sufficient use of all the advantages given them to render the situation of the surgeons of it disagreeable. The General, I know, has been much harrassed and perplexed already in this affair. * * * Your answer, if leisure permits, will much oblige,

"Your obedient servant,

"JOHN WARREN."

(Date August 10, 1776.)

At this time nearly one-fourth of the army were ill with bilious and putrid fevers and dysentery. Warren shared alike in the disagreements as well as in the struggles of the army during that trying year of 1776. After the attack by the British at Gravesend, Morgan wrote Warren the famous "razor" order:

"Sir:—

"I have sent to the surgeons desiring the youngest off duty to go to your assistance, and take four mates with him; to carry over 500 additional bandages and 12 fracture boxes. I fear they have no scalpels, as whatever I have committed to the hospital has always been lost. I send you two, in which case if you want more use a razor as an incision knife. Let me know from time to time at Long Island."

In that brilliant coup executed by Washington on the Delaware at Princeton, Warren and the entire medical corps came near being captured. On account of the sudden and unexpected nature of the movement, and because the medical department was some distance from the main army, the departure of the troops was not discovered until next morning. The surgeons were able, however, to be at Princeton in time to serve the wounded. Illness brought about Warren's return to Boston, and in July, 1777, he took up his duties as superintending surgeon of the military hospital in Boston. In December, 1776, General Greene wrote to Congress at Philadelphia:

"Sir:—

"I take the libery to recommend Dr. Warren to the Congress as a very suitable person to receive an appointment of a sub Director; which I am informed they are about to create a number of. Doctor Warren has given great satisfaction where he has had the direction of business. He is a young gentleman of ability, humanity, and great application to business. I feel a degree of happiness that the Congress are going to put the hospital department upon a better establishment, for the sick, this campaign have suffered bevond description and shocking to humanity. For my own part, I have never felt any distress equal to what the sufferings of the sick have occasioned and am confident that nothing will injure the recruiting service as much as this dissatisfaction arising upon that head.*

Shippen had now succeeded Morgan as physician general, and affairs were running more smoothly. The hospital to which Warren was assigned in Boston was near the present site of the Massachusetts General Hospital. The advantages to be derived from military hospitals were greatly increased. Warren had already shown considerable zeal for anatomical and surgical research. His new position gave him a good field

*American Archives, Fifth Series, Vol. III.

and he was quick to improve it, while the death or absence of the older men, like Joseph Warren, Lloyd and Jeffries left a wide opening in the ranks of the profession, and John Warren seemed to be the logical one to fill the gap. So he married a daughter of Governor Collins of Rhode Island, accepted his opportunity and settled in Boston.

The next year (1778) Warren formed a partnership with Rand and Hayward to establish a smallpox hospital in Brookline. This arrangement was to last fourteen months. The troubles experienced in obtaining supplies for the military hospital worried Warren greatly. In a letter to the Governor and Council of the State of Massachusetts he says: *

"Though I have frequently represented the distressed condition of the sick in the Continental Hospital, yet I have never had so ample occasion to deplore their miseries as at present. For some days they have not had an ounce of meat; not a stick of wood but what they have taken from the neighboring fences; for nearly a week not a vegetable; and scarcely any medicine for above a year. In fine to sum up the whole in a few words, the sick and wounded, many of which are exceedingly dangerous, and some of them in a state which requires immediate amputation, are not furnished by the public with a single article of sustenance except bread alone, and must have perished ere this had not the charitable donations of a few individuals in some measure contributed to their relief. I have been incessantly making applications, for these last twelve months to all the departments for supplies, but cannot procure any. During which time the groans of the sick and wounded, suffering and perhaps dying for want of necessities, have been perpetually saluting my ears, I must therefore beg your Excellency and Honor's action in this matter, and am with the greatest respect, Gentlemen, Your obedient servant. "JOHN WARREN."

During these years Warren was constantly improving every opportunity for the perfecting of his knowledge in anatomy and surgery gained in the service. Unaided by the advantages

* "Life of John Warren," by Edward Warren.

which some of his contemporaries enjoyed from their European experiences, he advanced steadily in reputation and proficiency, and as early as 1780 was admittedly the leader in surgery and anatomy in New England.

The means of acquiring knowledge in those branches of medicine were not easy. Here is a letter from Eustis descriptive of some of those difficulties:

> This may serve to inform you that as soon as the body of Levi Ames was pronounced dead by Dr. Jeffries it was delivered by a sheriff to a person, who carried it in a cart to the water side, where it was received into a boat filled with about twelve of Stillman's crew, who rowed it over to Dorchester Point. Stillman was a friend of Ames and had promised to preserve the body from the doctors. Our determination to have it was as fixed as the laws of the Medes and the Persians. * * * When we saw the boat land at Dorchester Point, we took chaise and rode around to the Point—but alas in vain, no corpse was to be found. Then we rode to Brackett's on the Neck and endeavored to knock 'em up to give us a dish of coffee, but failing we backed about to the Punch Bowl—got our desires gratified and got home about four in the morning. * * *

Thacher in his Journal tells how "the body of a soldier has been taken from his grave for the purpose, probably, of dissection, and the empty coffin left exposed. This affair caused considerable excitement among our people; both resentment and grief are manifested, as it seems to impress the idea that a soldier's body is held in no estimation after death. Such a practice, if continued, might be attended with serious consequences, as it affects our soldiers. Much inquiry has been made, but without success, for the discovery of the persons concerned; and the practice in future is strictly prohibited by the commander-in-chief."

THE FOUNDING

(CONTINUED)

CHAPTER III.

THE FOUNDING—CONTINUED.

The practice of medicine at that period was far from lucrative. This was due to the fluctuating state of the old continental money, as well as to the small size of the fees in vogue. Lloyd and Rand, whose practice was among the wealthy, received fifty cents a visit, including medicine; midwifery cases were at a guinea; capital operations about the same, with visit charges for after-dressings.

To remedy this state of affairs the Boston physicians called a meeting at the Green-Dragon Tavern, and from this meeting the Harvard Medical School took its origin. Ephraim Eliot, a graduate of 1780, and a student of Rand, gives an interesting account of this important event:*

"The first fees established by this medical club were half a dollar for a visit; if in consultation, a dollar; rising and visiting after eleven o'clock and previous to sun-rising, a double fee; cases in midwifery, eight dollars; capital operations in surgery, five pounds lawful money; reducing a dislocation, or setting a fractured bone, one guinea; small operations in surgery, according to circumstances; bleeding and opening abscesses, half a dollar; extracting a tooth, the same, if the person called on the doctor; if not, a fee for a visit was added. The advance on medicines found for patients, though bought of an apothecary, was enormous, often amounting to three or four hundred per cent. All accounts were to be calculated and kept in hard money; and the exchange, if payment was made in paper money, according to such agreement as could be made between the parties. The profession was much benefited by these regulations. The physicians became acquainted with each other; party politics were dropped at the meetings; but oil and vinegar will not

* Mass. Hist. Society Proceedings, 1863-1864.

unite. *They did not love each other,* and all were determined to put down Warren; but they could not; he rose triumphant over them all.

"One night Dr. Rand returned home from one of his professional meetings and, addressing himself to me, he said, 'Eliot, that Warren is an artful man, and will get to windward of us all. He has made a proposition to the club, that, as there are nearly a dozen pupils studying in town, there should be an incipient medical school instituted here for their benefit, and has nominated Danforth to read on materia medica and chemistry; proposed that I should read on the theory and practice of physic, and some suitable person on anatomy and surgery. *He* was immediately put up for the latter branches; and, after a little maiden coyness, agreed to commence a course, as he has many operations and surgical cases in the Continental Hospital, of which he is sole director in every respect; and he can always have command of subjects for dissection, without exciting alarm, or being reduced to the necessity of taking bodies from the burying ground, as most of the inmates of the hospital were foreigners, and no one would scrutinize into the matter. I would have you attend the lectures, which will also save me the trouble of dissecting with you in order to qualify you for a surgeon. Danforth declined, as it was not possible to procure a chemical apparatus; and as to myself, who would want to hear an uninteresting course of lectures on fevers and consumptions? so I followed his steps. Now, Warren will be able to obtain fees from the pupils who will attend his lectures on Anatomy and Surgery, and turn it to pecuniary advantage. But he will not stop there; he well knows that moneys have been left to the college for such an establishment as he is appointed to, and he is looking to the professorship. *Mark what I say, Eliot; you will probably live to see it verified.'*

"Thus Rand, evidently chagrined. At the proper season Dr. Warren read a very excellent course of anatomical lectures with demonstrations, and exhibited the various operations of surgery. It was renewed the next year. The fulness of time having come, the corporation (of Harvard University) began seriously to think of setting up a medical institution. At first, the improvements of Dr. Hersey's legacy was deemed a sufficient foundation; but, on the suggestion of the friends to that seminary, a more enlarged plan was determined to be adopted: a professor of chemistry and materia medica, a professor of anatomy* and surgery, and one of the theory and practice of physic, were to be established. But the professors were to be sought: a professor of anatomy and surgery, eminently qualified, could be obtained at once. For the other branches it required reflection. It was suggested that Dr. Aaron Dexter,

*In the manuscript, a pen has been drawn through the word "Anatomy," and what appears like "phisic" written over it.

who had attended the practice with Dr. Danforth, the most scientific chemist then on the stage, could easily qualify himself for a chemical professor. Dr. Waterhouse had recently arrived in Boston, or was expected in a short time. He had spent some years in London, and had completed his education in Leyden; was a relation and pupil of the excellent Dr. Fothergill of London, who, it was said, had contemplated such an establishment at this university; and, although he had died, it was also reported that Dr. Lettsom had succeeded to much of his business, and meant to fulfill his benevolent intentions. This was only a gossiping story, but was believed, or rather hoped for, by many persons. Dr. Waterhouse was therefore determined upon for the other professorship. According to the bequest of Dr. Hersey, his professor was to be resident in Cambridge; and there was no provision for a division of the legacy. It was to be for the benefit of a professor of physic and surgery; but, by an arrangement with the heirs of Dr. Hersey, it was consented to that Waterhouse should reside in Cambridge, the income to be divided in proportions to be determined upon between Warren and Waterhouse. Major William Erving, a Bostonian, and relation of Governor Bowdoin, who had been in the British service from his youth, but had retired therefrom, and having been much acquainted with Dr. Dexter, died in good time, and left an income to the chemical professorship. It was presumed that the attending students on the medical establishment would make up a sufficient gratuity to render it an object to the several gentlemen who had the appointments."

The society concerned in all this was called the Boston Medical Society, which was organized on May 14th, 1780.* The Massachusetts Humane Society was founded in 1780, and held its first meeting at Warren's house in February of that year. These two societies exist today.

In August, 1781, Warren was elected a member of the American Academy of Arts and Sciences, an organization founded the year previous. In this society were Governor Bowdoin, President Willard of Harvard, John Hancock, John Adams, Holyoke, Jarvis, and others. Warren read a paper entitled " An Account of a Large Tumor in the Abdomen con-

* The principal members of this Society were Danforth, Rand Jr., Kast and John Warren.

taining Hair." This added to his reputation, and no doubt had some weight at the next meeting of the Boston Medical Society, at which it was voted (November 3, 1781) "That Dr. John Warren be desired to demonstrate a course of anatomical lectures the ensuing winter."

Warren had given a course of anatomical demonstrations to the physicians of the army and of Boston at the Military Hospital the winter before (1780). As that was the first attempt in Boston to teach anatomy by means of demonstrations, it was necessary to observe great secrecy on account of the existing prejudice against dissection. The course under the auspices of the Boston Medical Society, however, was given publicly at the hospital, and was attended by many literary and scientific men, including President Willard and members of the Harvard Corporation, as well as students from the college. A third course of demonstrations was given in 1782 in the "Molineux house," on Beacon Street, between Sumner (Now Mt. Vernon) and Bowdoin Streets. This course was attended by the senior class at Harvard.

Here is a fact and a date to be remembered: at a meeting of the President and Fellows of Harvard College held in Boston, on May 16th, 1782, "The Corporation having taken under consideration the establishment of a medical professorship at the College, voted, That the President and Professor Wigglesworth be a committee to take up the subject at large, and to make a report to this Board at some future meeting."* At a meeting of the Corporation on September 19th, 1782, the above named committee presented the following report:†

* College Book No. 8, p. 117.

† College Book No. 8, p. 124.

"1. That the library of the University be enriched with a collection of the most approved authors in anatomy, surgery, physic, chemistry etc.—a collection more perfect than any in America, as soon as circumstances will permit.

"2. That a complete anatomical and surgical apparatus, a set of anatomical preparations with a proper theater, and other necessary accommodations for dissections and clinical operations, be provided, as soon as there shall be sufficient benefactions for these purposes.

"3. That application be made to the General Assembly of the Commonwealth for a law, giving the bodies of criminals executed and of suicides to the Professors of Anatomy (when one shall be established at the University) for dissection.

"4. That as soon as ways and means can be devised for raising sufficient funds for the encouragement of Professors of Anatomy and Surgery, the Theory and Practice of Physic, the Materia Medica and Chemistry, Professorships of these branches be provided in the University.

"5. That the Professors be elected by the President and Fellows of the University (or the major part of them) for the time being, and be by them presented, when chosen, to the overseers, to be by them approved and confirmed in their office.

"6. That the Professors be at all times under the inspection of the President and Fellows, and of the Overseers for the time being, or the major part of them displaced for any just and sufficient cause, the Overseers also, or the major part of them, consenting thereunto.

"7. That on the death or removal of any such Professor a successor be elected by the President and Fellows within the space of one year, and be by them presented to the Overseers for their approbation and confirmation; and that, in case of the President and Fellows neglecting to make choice of a successor within said term, the Overseers for that time proceed to elect and appoint such successor.

"8. That each Professor be a Master of Arts, or a graduated Bachelor or Doctor of Physic, of the Christian religion, as it is maintained in the Protestant communion, and of strict morals.

"9. That each Professor be at all times exempted from all other duty and attendance in the University, besides what relates to his Professorship, or from residing in the town of Cambridge till there be funds sufficient for his support, and other circumstances may make such residence eligible.

"10. That the Professors demonstrate the anatomy of the human body on recent subjects if they can be procured; if not, on preparations duly adapted to the purpose. That they elucidate this by physiological observations on the parts, and explain and perform a complete system of surgical operations. That they teach their pupils the theory and practice of physic by directing and superintending, as much as may be, their

private studies, lecturing on the diseases of the human body, and taking with them such as are qualified to visit their patients, making proper observations on the nature of their diseases, the peculiar circumstances attending them, and the methods of cure; and whenever the Professors be desired by any other gentleman of the faculty to visit their patients, in difficult and uncommon cases, they shall use their endeavors to introduce with them their pupils, duly qualified. That they deliver lectures on the materia medica. That they explain the theory of Chemistry and apply its principles in a course of actual experiments.

"11. That the number of the Professors and the distribution of these several branches to such as shall be chosen be for the future consideration of the Corporation and Overseers.

"12. That each of these Professors have the use of the Library, and be entitled to all the privileges of the University in common with the other Professors, as far as circumstances will permit.

"13. That all students in physic residing in the Halls of the University or in the town of Cambridge during the course of the above lectures, who shall put themselves under the instruction of the Professors, whether they have had a college education or not, be entitled to the use of the Authors in the Library, in Anatomy, Surgery, Physic, Materia Medica and Chemistry, under the direction of some one of the Professors, or of any other Authors by the Professors' permission. Graduates and Undergraduates of the University paying customary fees, and all others double fees.

"14. That all students in physic, whether they have had a college education or not, be admitted to the lectures and instruction of the Professors, on their giving permission, to pay the established fees, and other dues of the University legally assessed. Undergraduates, however, shall not be admitted till they are of two years standing in the University, nor then without their parents or guardians signifying their consent to the President in writing. Such students, nevertheless, who are of two years standing, and twenty-one years of age, may be admitted on their own application to the President.

"15. That all students in physic residing within the University or in the town of Cambridge shall pay obedience to the laws of the University.

"16. That every student in physic shall be assessed in the quarterly bills, by the President and Fellows, with the consent of the Overseers, such sum as shall be mutually agreed on by the Professors and himself.

"17. That there be an examination of the students in physic, once a year at least, in the presence of such Governors of the University and members of the Massachusetts Medical Society, as shall chuse to attend; which examination shall be made by the medical Professors, or Professor if there should at any time be but one.*

* Amended later.

"18. That every student who on examination shall be judged qualified to enter on the practice of physic and surgery shall have a *certificate under the seal of the University,* purporting that he has had a regular medical education, and that on a public examination he has been found qualified for such practice. This certificate shall be signed by the President, the medical Professors, and the other Professors of the University.*

"19. That every practitioner having such certificate be conjoined to communicate to some one of the medical Professors all such observations as he may make in the course of his practice, which he shall judge to be of public utility, which observations the Professor shall communicate to the Public (as often as means are found for defraying the expense of the publication) with their remarks on them.*

"20. That degrees in physic which shall be conferred according to regulations to be hereafter established be not given to any but those who have received the aforementioned certificates, except honorary ones, to gentlemen of great eminence in the Profession, which being conferred as a reward of merit, shall be given free from all fees.*

"21. That all fees paid for degrees be applied in such manner as to render the plan of medical instruction of more extensive utility to the University and the Public, under the direction of the President and Fellows, with the consent of the Overseers.

"22. That as soon as a Professor is introduced into any one of the above branches the students in physic shall stand candidates for all medical honors, from the University.

"Finally, as the College has not sufficient funds to maintain Professors of the foregoing branches at Cambridge, it is the opinion of the Committee that it would be expedient for the Corporation as far as may be, to elect into those Professorships some gentlemen of public spirit and distinguished ability who would undertake the business for the present for the fees that may be obtained from those who would readily attend their lectures. And should such be found to undertake this, as they doubt not there will be, they flatter themselves that the utility of this Institution will soon be so obvious that it will find great encouragement among us, from gentlemen of liberal minds and easy circumstances, who are friends to the University and to the Public, and disposed to alleviate the miseries of mankind by promoting the knowledge of the healing art.

"The whole is now respectfully submitted by Joseph Willard in the name and behalf of the Committee.

"Voted that this report be accepted."

*These articles were amended later.

The adoption of the foregoing articles led to a request from the Corporation that Warren draw up plans for a course of medical studies in connection with the college at Cambridge.

The accompanying illustration* is a copy of the certificate furnished by Warren to those attending his course of lectures.

Warren was assisted in the work of organization by the advice of Shippen and Rush, both of whom had had experience in the College of Philadelphia, as well as personal knowledge of the usages of foreign universities.

At a meeting of the Corporation, November 22nd, 1782, it was voted:

"That there be three Professors chosen as soon as circumstances will permit, and that Anatomy and Surgery be assigned to one; the Theory and Practice of Physic to another, and Chemistry and Materia Medica to a third.

"Voted, that the gentleman who shall be first elected a Professor superintend all the branches as far as may be consistent with the prosecution of his own particular branch till another is chosen.

"The question being put whether the Corporation will now proceed to the choice of a Professor of Anatomy and Surgery, it was voted in the affirmative.

"Written votes being brought in for a Professor of Anatomy and Surgery, it appeared that Dr. John Warren of Boston was chosen.

"That the filling of the Professorship of the Theory and Practice of Physic and of Chemistry and the Materia Medica be for the future consideration of the Corporation.

"That the President and Professor Wigglesworth be a committee to form an article for the Medical Institution on the subject of conferring medical degrees, and to compose an introduction for ushering it into the public view, together with such remarks as they may think expedient, and to make a report to this Board at some future meeting."

On December 24th, 1782, Benjamin Waterhouse was chosen Professor of the Theory and Practice of Physic,

* From "Harvard Medical Alumni Association Quarterly," No. 5.



FACSIMILE OF CERTIFICATE ISSUED BY JOHN WARREN IN 1782.

The Israel Keith mentioned is probably the graduate of 1771, Harvard College.

and it was "voted that Dr. Warren and Dr. Waterhouse be desired, either or both of them as may be most convenient to them, to deliver Lectures in Chemistry and the Materia Medica till some Gentleman is chosen for a Professor in that department. Voted that the President, the Treasurer and Mr. Wigglesworth be a committee to provide some convenient room for the Professor's Lecture or to fit up the old Chapel for the purpose, if it should be thought necessary, and that the Committee confer with the Professors upon the subject."

On May 22nd, 1783, Aaron Dexter, of Boston, was chosen Professor of Chemistry and Materia Medica.

Each Professor, at his induction into office, made and subscribed to the following attestation:

"I elected Professor of in the University of Cambridge, declare myself to be of the Christian religion as maintained in the churches of the Protestant communion. * * * I promise to discharge the trust now reposed in me, with diligence and fidelity, and to the advantage of the students in my particular department. * * *

"I promise to promote the interests of virtue and piety by my own example and encouragement. * * * I declare and promise that I will not only endeavor the advancement of medical knowledge in the University but consult its prosperity in every other respect. * * *

"I promise to demean myself as a good citizen of the United States of America, and to use every endeavor to perpetuate their union and promote their happiness. And in particular I promise according to my best abilities to support the present constitution of the Commonwealth of Massachusetts, and to conduct myself in conformity to its wholesome laws."

On October 7th, 1783, John Warren and Benjamin Waterhouse were publicly inducted into office. The following account of this interesting ceremony is taken from the records of the meeting of the Harvard Corporation of that date:

"At about 11 o'clock a. m. the Governor and Lieutenant Governor with several other gentlemen of the Board of Overseers and Corporation came to the University, and at the steps of Harvard Hall were received by the President, Professors and Tutors and conducted to the Philosophy Chamber.

"A little before twelve o'clock, upon the tolling of the bell, all the undergraduates assembled in the front of Harvard and formed in two ranks in inverted order; as soon as they were formed, the President, the rest of the Corporation and the Professors and Tutors preceded the Governor, the Lieutenant Governor and the other Members of the Board of Overseers, the Consul and Vice Consul of France, the officers of the Massachusetts Medical Society and the Clergymen and other Gentlemen present down to the steps of Harvard, from whence they were conducted by the Undergraduates to the Meeting House, who at the front door opened to the right and left and stood with their heads uncovered till the Governors of the University and the other Gentlemen of the procession had passed into the Meeting House.

"After the company had all entered the exercises began, and

"1. The President opened the solemnity with prayers.

"2. He delivered a short introductory Latin oration in which he made mention of the Medical Institution, and declared that Dr. John Warren had been regularly chosen Professor of Anatomy and Surgery, Dr. Benjamin Waterhouse of the Theory and Practice of Physic, and Dr. Aaron Dexter of Chemistry and the Materia Medica, who had all accepted the trusts, the two first of whom were present and ready to be inducted, the third was necessarily absent.

"3. The President directed the Librarian to deliver the Medical Institutes to the Senior Professor, viz: the Professor of Divinity, that they might be publicly read by him, which were read accordingly.

"4. The Professors were called upon by the President to make their declarations and promises agreeable to the form determined upon by the Corporation at a meeting September 18, 1783, and the Professor of Divinity was directed to deliver them the Papers containing the declarations &c which each read standing before the door of the Pew in which the Governor sat; and after reading each signed the particular Paper which had been delivered to him.

"5. The President asked leave of the Overseers and Corporation to declare Dr. John Warren Professor of Anatomy and Surgery and Dr. Benjamin Waterhouse Professor of the Theory and Practice of Physic, and upon leave being granted he publicly declared them Professors of these Branches, and concluded with his good wishes for their usefulness.

"6. The President called for the inaugural orations of the new Professors which was delivered by them from the Desk in the Latin Language.

"7. The 13th, 14th, 15th, & 16th verses of the cxxxix Psalm and the 1st, 2nd, 3rd & 4th of the ciii according to Tate's & Brady's version were then sung.

"Immediately after the singing the company was invited to dine in the Hall and the Procession returned to Harvard in the same order it moved from thence." *

† Mem°. October 16, Dr. Aaron Dexter was inducted before the Overseers and Corporation.

* Mem°. The whole of the President's part in this solemnity (the prayers excepted) was in Latin.

Warren set about his work with that zeal and energy which had come to be recognized as one of his characteristics. With few books of instruction, without a teacher as guide, or a model as aid, the preparation of the lectures was a task that would have staggered any man less courageous and determined than he. The lectures were a novelty about Boston, and it was not always convenient to procure subjects suitable for demonstration. When the resurrection-man failed him, Warren used to advantage material from the hospital,—arms, legs, etc., procured after operations.

It is said that Warren never wrote out a course of lectures and seldom used notes. His style was forceful yet unaffected, and had an originality which made a great impression upon his pupils. He was so alive to his subject that he seldom failed to carry conviction to the minds of his hearers.

When the French surgeons came to this country with their army they had made their influence felt for the improvement of surgery and anatomy. Warren soon acquired sufficient French to take advantage of the books they offered him. He studied the Anatomy of Sabatier, then the best system in print, till he was thoroughly possessed of all it contained, and so he made his lectures more regular and uniform. Those first

lectures were attended by about twenty students, and "those members of the two senior classes at college who had obtained their parent's consent." The lectures were generally two or three hours long. That the physical strain as well as the mental labor must have been enormous upon a man of Warren's large practice and activity, may be imagined. Thacher says:* "During the earlier period of his lectures at Cambridge he was more than once on the point of succumbing to the excessive efforts he made to carry them on. In the fullness of professional business he daily passed over Charlestown Ferry to Cambridge, there not being a bridge at that time, and, sometimes, when impeded by ice, was compelled to take the route through Roxbury and Brookline to Cambridge (about nine miles), and return on the same morning, after himself performing the dissections and giving a lecture sometimes three hours long. Twice he offered to resign his Professorship, but was prevailed on to retain it."

Let us consider briefly what manner of men those were who formed the first faculty of the Harvard Medical School. Of Warren much has already been said, so leaving him for the present we will speak of his associates, Waterhouse and Dexter.

Benjamin Waterhouse was born at Newport, Rhode Island, March 5, 1753.† His mother (Hannah Proud) was a niece of John Fothergill, the well known London physician. This kinship had much influence upon Waterhouse's life. He at-

* Biography, p. 216.

† Much of the biography of Waterhouse is taken from W. M. Welch's address: Philadelphia County Medical Society, Jan. 14, 1885.

tended Dean Berkeley's school at Newport, where he had as fellow students Arthur Brown and Gilbert Stuart. Brown went to Dublin, Ireland, and became Senior Fellow of Trinity College and King's Professor of Greek. Stuart we know as the painter of many portraits cherished among us. It is said that Waterhouse tried his hand at painting before taking up the study of medicine.

When sixteen years old, Waterhouse began his medical studies under Halliburton, at Newport. The last ship to escape from the interdicted port of Boston in 1775 carried among its passengers Waterhouse, setting out for his medical course in Europe. Directed by Fothergill he spent his first nine months in Edinburg under Cullen, Black, and Munro. Returning to London he entered the family of Fothergill, and continued the study of medicine, as well as experimental philosophy, mineralogy and botany, which gave him prominence later in life. This course in London lasted three years, and was further enriched by four years at Leyden, whence he was graduated in 1780.

Having absented himself from America throughout the whole of the war period, he returned to Newport in June, 1782, where there was a good opening on account of the departure for Halifax of his old preceptor, whose political views were out of harmony with present Newport surroundings.

When elected Professor of Theory and Practice at Harvard, Waterhouse was twenty-nine years old. From the first year of his professorship he seems to have been in trouble with his associates and the Board of Management. Feeling that his seven years of study in Europe gave him a right to superior recognition among the Boston practitioners, he adopted an

unfortunate pedantic manner which brought upon him ridicule and enmity. The relations of Waterhouse and Warren were strained. Each accused the other of deceit, double dealing, lying and slander. It was a bad business, wherever the fault lay, and damaged the University. Both men today have their champions. Now, this is a history of the Harvard Medical School, and the doings of men concern us only so far as their lives affect the tale. While we remember that it often required a vote of the Corporation to keep these two from personal encounter, let us remember also the truly fine pioneer work they did for our Alma Mater.

In 1786 and 1787 Waterhouse read a course of lectures on Natural History, and on Mineralogy and Botany. These were given at the Rhode Island College at Providence. In 1788 this course was transferred to Cambridge, where he continued to give it voluntarily and without fees for twenty years. Welch says that these lectures brought him more reputation than his lectures on the Theory and Practice of Physic. He turned them to some pecuniary advantage, however, for in 1788 the Corporation at Harvard loaned him twenty pounds, "the same to be refunded from the sale of the synopsis of his lectures upon Natural History or otherwise."

In this same year (1788) Waterhouse published also a synopsis of his lectures on Theory and Practice, and "being surrounded by many perplexities and difficulties, as well as discouraged by the slow progress the school was making," he resigned. Subsequently, on the request of the Corporation, he withdrew his resignation.

Among the friendships formed by Waterhouse while in Europe was that with Lettsom, who became Fothergill's suc-



BENJAMIN WATERHOUSE.

M. D. (Hon.) 1786.
Hersey Professor Theory and Practice 1783-1812.



cessor. From Lettsom, Harvard received a vaulable collection of minerals and other natural history specimens which formed the basis of the Natural History Museum at Cambridge. Then followed the establishment of the Botanical Garden, which, with the Museum, owes its origin to Waterhouse's interest in those branches. Lettsom received the M. D. (Hon.) from Harvard in 1790, and the LL.D. in 1794, from Brown. Waterhouse was granted the M. D. from Harvard in 1786.

The most important event, from an historical point of view at least (in the life of Waterhouse), was his connection with the introduction of vaccination into this country. In 1799 he received from Lettsom a copy of Jenner's "Inquiry Into Cause and Effect of Variolar Vaccine, or Cow Pox," published in June the year previous .

On March 12th, 1799, Waterhouse published in the "Columbian Sentinel" a treatise on vaccination, entitled "Something Curious in the Medical Line. A short account of the *New Inoculation.*" * This essay was received variously,—some few accepted and applauded, some doubted and kept quiet; the majority, especially the physicians, criticised and ridiculed. Those last apparently were justified because Waterhouse, as well as Woodville in London, had committed the error of vaccinating first, and in from three to five days inoculating the same patient with variolus matter, thus producing a cow pox infection and a small-pox inoculation at the same time. Waterhouse received some vaccine virus from Haggarth, of Bath, England, in June, 1800. With this (on July 8th, 1800) he vaccinated his five year old son. The case

* See "Johns Hopkins Bulletin," Jan., 1904, page 24, in reference to the claims of John Crawford, of Baltimore.

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showed a typical reaction, the scar being described thus, "A piece of true skin was fairly taken out of the arm by the *virus*, the part appearing as if eaten out by a caustic, *a never failing sign of thorough affection of the system in the inoculated small-pox.*" That was the first case of vaccination in this country.

Waterhouse, remembering no doubt the experience of Boylston under similar circumstances, wrote to Aspinwall, then in charge of the Small-Pox Hospital at Brookline: "I have collected everything that has been printed, and all the information I could procure from my correspondents, respecting this distemper (cow-pox), and have been so thoroughly convinced of its importance to humanity that I have procured some of the vaccine matter, and therewith inoculated seven of my family. The inoculation has proceeded in six of them exactly as described by Woodville and Jenner,* but my desire is to confirm the doctrine by having some of them inoculated by you. * * * I can obtain variolus matter and inoculate them privately, but I wish to do it in the most open and public way possible. As *I have imported a new distemper,* I conceive that the public has a right to know exactly every step I take in it. I write this, therefore, to enquire whether you will, on philanthropic principles, try the experiment of inoculating some of my children who have already undergone the cow-pox. If you accede to my proposal, I shall consider it as an experiment in which we have co-operated for the good of our fellow citizens, and relate it as such in the pamphlet I mean to publish on the subject."

In this letter there is nothing to support the satirical thrusts

* There was however no eruption on the children such as Woodville had observed in his cases. A single typical vaccine vesicle was all that was seen.

by Holmes, or the allegations of the newspaper articles directed against Waterhouse, in which he is styled an *old drone* enjoying the sweets of the beehive (the new medical school) without assisting in the labor, or even paying for the privilege of humming and buzzing in it. Whatever recompense came to Waterhouse for his labors at the Medical School and from other sources must have been small, for in 1810 he petitioned the legislature to reimburse him. This request was refused. In 1812, when he resigned from the School, he said that " during the last fifteen years of service he did not receive one farthing as salary, and that in no year did it amount to $400.00." From the years 1813 to 1820 he was supported by appointments received through Jefferson and President Madison, both of whom he had greatly interested in the vaccination question. No doubt some of this recognition was honestly earned by Waterhouse from his political writings, in which work he was active and in which he excelled to a marked degree. He was held in honor by scientific societies both at home and abroad, and it is said that the London Medical Society unanimously voted him the title " The Jenner of America." He died on October 2, 1846, at the age of ninety-two years.

Aaron Dexter was born in Chelsea, Massachusetts, in 1750. Many of the biographical sketches of him state that he was born at Malden. This error is due to the fact that he entered Harvard from the latter place, where his parents were then living. His family belonged at Dedham, Massachusetts, and one of them, Samuel Dexter, was Secretary of War, and of the Treasury, under John Adams. Graduated from Harvard in 1776, Dexter studied medicine under Danforth, then one of the foremost chemists in this country. Here he was undoubtedly taught much Chemistry and Materia Medica, which probably accounts for the often repeated statement that Dexter

was a druggist rather than a physician. During the Revolution, Dexter was a ship-surgeon, and was captured by the British and taken to Halifax. Towards the close of the war he was exchanged, returned to Boston, married Rebecca, daughter of Thomas Amory, of Boston, and soon established himself in the practice of medicine. He is said to have been remarkable for his urbanity and kindness. He was universally respected as a physician and citizen. He was an incorporator of the Massachusetts Medical Society and its first treasurer.

Dexter was one of the five to first consider the formation of the Massachusetts Humane Society. Besides this he was an active member of the Massachusetts Historical Society, the Academy of Arts and Sciences, and the Agricultural Society, and served on important commissions for public improvements. His contributions (on the manufacture of potash) to the American Academy memoirs, and his dissertation upon the use of blisters in diseases of the articulations* show knowledge in advance of the age. In the latter paper he speaks of consultations with Warren and others, and shows an intimate acquaintance with the literature then extant upon joint affections. These facts seem to warrant the belief that his profession was medicine and not pharmacy.

In 1786 Harvard conferred upon him the M. D. (Hon.) as did Dartmouth in 1805. He was active in the Anthology Club, the forerunner of the Boston Atheneum and the "North American Review."

In 1791, by the will of Major William Erving, a graduate of Harvard (1753), and formerly in the British service for

* Second Volume of Massachusetts Medical Society, Annual Discourse, 1809.

many years, the chair of Chemistry and Materia Medica was endowed. This gift is said to have been made as a token of Erving's respect and affection for Dexter, and, "being unwilling to pass through existence without profiting the community, it is my will and pleasure that a sum of money, not less than one thousand pounds, be paid, as soon as it conveniently can be after my decease, into the hands of the Overseers and Corporation of Harvard College, for the sole use and purpose of enlarging the salary of the Professor of Chemistry, who is to receive the annual interest of it." * Dexter held this professorship until 1816, when the Erving chair of Chemistry and Materia Medica was divided, and Dexter was made Emeritus Professor of Chemistry. In 1827 this became the Erving Professorship of Chemistry and Mineralogy, and

* The following letter from Governor Bowdoin to General Washington, dated May 14, 1787, refers to William Erving thus: "Major Erving, a brother of Mrs. Bowdoin, will have the pleasure of delivering you this letter. He was formerly an officer in the British army, and has seen a great deal of service. He was particularly at the reduction of the Havannah, Louisburg, Quebec, & distinguished himself in all those campaigns, but quitted the service some years before the British Ministry invaded their then colonies.

"I have the pleasure to assure you he has always been a firm & Zealous friend to the rights & liberties of America; & in that character, a character always acceptable to General Washington, I beg leave to introduce him."

When General Burgoyne came to this country he held a letter of introduction to Governor Bowdoin from Major Erving, with whom he had served. This letter was signed *Irvine*, which accounts for the confusion existing in various references to this benefactor of Harvard College. The name has its origin in an old spelling of the family name *Erwin*, the standard-bearer of Robert Bruce, and so down through the Lairds of Drum. Although some of the Ervings were loyalists during the Revolution, William Erving cast his lot with the Colonists. He died a bachelor. (Mass.) Hist. Proc. xiv, page 232-233.

Dexter held it at the time of his death, in 1829, February 28th, "honored alike as a chemist, a physician, and a citizen."

During Shays's Rebellion, Dexter served until the uprising was crushed. A biographer says of him:* "His successful efforts during a long and active life to establish and maintain the literary and charitable institutions of his country furnish a claim of no ordinary character to the grateful remembrance of his fellow citizens." Dexter was appointed Professor at Harvard at a time when chemistry was little understood in this country, and there were very few persons here who devoted any attention to its study. His industry, labor, and zeal, both in his own department, and for the general interest of the school, as well as for the medical profession, was much appreciated by the scientific public. He became the oldest officer in the University, and wanted to resign on account of his age but was prevailed upon to remain. In 1809 an Adjunct Professor was appointed upon the request of Dexter and in 1816 the Corporation made him Emeritus in recognition of his services. In the "New England Medical Journal" † two letters from a physician appear in which Dexter is consulted for his opinion as to the diagnosis in a case of supposed spotted fever, and in a case of puerperal convulsions. Dexter was one of the first medical staff of the Massachusetts General Hospital at the opening of that hospital in 1821. The United States Marine Hospital at Chelsea was built on a part of the Dexter estate.

* Alden Family Records, "Christian Register."
† Volume viii.

THE FOUNDING

(CONTINUED)

CHAPTER IV.

THE FOUNDING—CONTINUED.

President Willard had misgivings as to the immediate success of the projected Medical School, and on November 8, 1783, wrote to Warren:

"Sir:—

"I have been expecting some time past to see an advertisement from the Medical Professors in the Newspapers. I should think that if they begin their lectures this fall, as I hope they will, that the sooner they advertise the better. They will not be able to know till they advertise what number of the students in physic will be likely to attend them. Upon their letting the public know when they shall begin, those who design to be their pupils this season will, I imagine immediately apply to them to know the terms, which the professors will adjust according to their best dispositions.

"I hope it will not be long before the profession advertise, lest the public begin to think that the proceedings of the University were mere parade, and that the medical institution was likely to be attended with no utility. The students in physic will not, I suppose, be numerous this season; but I doubt not, if these lectures should meet with approbation as I promise myself they will, the profession will in a year or two find their pupils so increased that their labors will not be without emolument."

To this Warren replied, writing from Boston, November 8th, 1783:

"Sir:

'I have this moment been honored with your favour of this Day relative to advertizing for the medical Lectures. I am ready to commence the Course on Anatomy and Surgery immediately but could not see the Propriety of advertizing at present untill the terms and Conditions were agreed upon—as I conceived that great Embarrassment might be the consequence—already have two or three applications been made to me by Gentlemen from a considerable Distance in the Country to know the terms of my Course. I could not inform them and they have returned

as they came, and it is probable this would be the case with many more was an advertizement to be published previous to those arrangements—I could wish for my own Part when I commence my Course to do it upon a Basis that may afford a Prospect of Honour to the University and utility to the students, and thought it best rather to postpone the publication for a few Weeks than to Subject the Institution to the Hazard of Disgrace through Want of System, and Arrangement—as I felt myself interested together with the U—— in having a proper Number of Applicants to be depended upon, a failure in this Respect might render it ineligible to begin until Spring, and would therefore reflect Dishonour on the Attempt; It was upon this Principle that the Medical Professors had a Meeting and agreed upon some general terms respecting the Lectures; and agreeably to your desire when I had the Honour of seeing you at the Governors; I offered it for the Inspection of the Corporation desiring their Opinion, and requesting Information of some Circumstances in the Exercises of the College Students, to which we wished to conform and adapt the Seasons of our exhibitions—The *fees* and *Days* were the principal articles we wished to arrange, and I have been waiting for your & their Sentiments for Direction of our Conduct; The fees of Philadelphia were to be submitted to Dr. W—— to be presented as alterated. I would wish if it were possible to have a better anatomical apparatus and doubt not Measures will be taken for procuring it. I should be happy to know what Apartment is allotted for my Dissections —as some little preparation will be requisite to fit it for the Purpose.

"I have particularly stated to you Sir my Reasons for not having yet advertized but your having signified your wish that it should be done is sufficient motive with me for doing it as soon as possible.

"I have the Honor to be Sir with the greatest Respect,

"Yr. most obedt. Servt. "J. WARREN."

The enterprise was not without other troubles of its own. Scarcely was it under way when it found its purposes challenged. The Massachusetts Medical Society had been established in 1781 with a charter granting certain rights and privileges, which in 1783 seemed to clash seriously with the powers embodied in the constitution of the New Harvard School.*

* The following is the Legislative Act incorporating the Massachusetts Medical Society, and may serve to emphasize better the contested points:

This society was composed of thirty-one members and the membership was limited to seventy. (It is worthy of note that out of the thirty-one incorporators of the Massachusetts Med-

An Act to incorporate certain *Physicians* by *The Name* of *The Massachusetts Medical Society.*

As health is essentially necessary to the happiness of society; and as its preservation or recovery is closely connected with the knowledge of the properties and effects of medicines; and as the benefit of medical institutions formed on liberal principles, and encouraged by the patronage of the law, is universally acknowledged;

Be it therefore enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, That, Nathaniel Walker Appleton, William Baylies, Benjamin Curtis, Samuel Danforth, Aaron Dexter, Shirley Erving, John Frink, Joseph Gardner, Samuel Holten, Edward Augustus Holyoke, Ebenezer Hunt, Charles Jarvis, Thomas Kast, Giles Crouch Kellogg, John Lynn, James Prescott, Charles Pynchon, Isaac Rand, Jr., Micajah Sawyer, John Sprague, Charles Stockbridge, John Barnard Swett, Cotton Tufts, John Warren, Thomas Welsh, Joseph Whipple, William Whiting, be, and they hereby are formed into, and constituted a body politic and corporate, by the name of The Massachusetts Medical Society; and that they and their successors, and such other persons as shall be elected in the manner hereafter mentioned, shall be and continue a body politic and corporate by the same name forever.

And be it enacted by the authority aforesaid, That the fellows of said society may from time to time elect a president, vice-president, and secretary, with other officers as they shall judge necessary and convenient; and they the fellows of said society, shall have full power and authority from time to time, to determine and establish the names, number and duty of their several officers, and the tenure or estate they shall respectively have in their offices; and also to authorize and empower their president or some other officer to administer such oaths to such officers as they, the fellows of said society, shall appoint and determine for the well ordering and good government of said society, provided the same be not repugnant to the laws of this commonwealth.

And be it enacted by the authority aforesaid, That the fellows of said Society shall have one common seal, and power to break, change and renew the same at their pleasure.

And be it enacted by the authority aforesaid, That they, the fellows of said Society, may sue and be sued in all actions, real, personal or mixed, and prosecute and defend the same into final judgment and execution, by the name of The Massachusetts Medical Society.

ical Society, twenty-three had been graduated from Harvard College.) The first meeting was held at the County Court House, in Boston, on November 28th, 1781. A permanent

And be it enacted by the authority aforesaid, That the fellows of said Society may from time to time elect such persons to be fellows thereof, as they shall judge proper; and that they, the fellows of said society, shall have power to suspend, expel or disfranchise any fellows of said Society.

And be it enacted by the authority aforesaid, That the fellows of said Society shall have full power to make and enact such rules and bye laws for the better government of said Society, as are not repugnant to the laws of this commonwealth; and to annex reasonable fines and penalties to the breach of them, not exceeding the sum of *twenty pounds,* to be sued for and recovered by said Society, and to their own use, in any court of record within this commonwealth proper to try the same, and also to establish the time and manner of convening the fellows of said society; and also to determine the number of fellows that shall be present to constitute a meeting of said society; and also that the members of said society, who are inhabitants of this commonwealth, shall not at any one time be more than seventy, nor less than ten; and that their meetings shall be held in the town of Boston, or such other place within this commonwealth, as a majority of the members present in a legal meeting, shall judge most fit and convenient.

And whereas it is clearly of importance, that a just discrimination should be made between such as are duly educated and properly qualified for the duties of their profession, and those who may ignorantly and wickedly administer medicine, whereby the health and lives of many valuable individuals may be endangered, or perhaps lost to the community;

Be it therefore enacted by the authority aforesaid, That the president and fellows of said Society, or such of their officers or fellows as they shall appoint, shall have full power and authority, to examine all candidates for the practice of physic and surgery, (who shall offer themselves for examination, respecting their skill in their profession) and if upon such examination the said candidates shall be found skilled in their profession and fitted for the practice of it, they shall receive the approbation of the society, in letters testimonial of such society, signed by the seal of the said Society, signed by the president, or such person or persons as shall be appointed for that purpose.

And be it further enacted by the authority aforesaid, That if the said president, and such other person or persons, so elected, and appointed for the purpose of examining candidates as aforesaid, shall obstinately refuse to examine any candidate so offering himself for examination as afore-

organization was effected June 5, 1782, and the following officers were elected:

President: Edward A. Holyoke, Esq.

Vice-President: Dr. James Pecker.

Counsellors: Dr. Samuel Danforth, Dr. Joseph Gardner, Hon. Samuel Holten, Esq., James Lloyd, Esq., Dr. Isaac Rand, Jr., Hon. Cotton Tufts.

Corresponding Secretary: Dr. John Barnard Swett.

Recording Secretary: Dr. Nathaniel Walker Appleton.

Treasurer: Dr. Thomas Welsh.

Vice-Treasurer and Librarian: Dr. Aaron Dexter.

Censors: Dr. Samuel Danforth, Dr. Charles Jarvis, Dr. Joseph Orme, Hon. Cotton Tufts, Esq., Dr. John Warren.

The seventh section of the act of incorporation of the Med-

said each and every such person so elected and appointed as aforesaid, shall be subject to a fine of *One hundred pounds,* to be recovered by the said candidate, and to his own use, in any court within this commonwealth proper to try the same.

And be it further enacted by the authority aforesaid, That the fellows of said society may, and shall forever be deemed capable in law, of having, holding and taking in fee simple or any less estate by gift, grant or devise or otherwise, any land, tenement or other real estate, real or personal; provided the annual income of the whole real estate that may be given, granted or devised to, or purchased by the said society, shall not exceed the sum of *two hundred pounds,* and the annual income or interest of said personal estate shall not exceed the sum of *six hundred pounds;* all the sums mentioned in this act to be valued in silver at *six shillings and eight pence* per ounce, together with the fines and penalties paid to said society, or recovered by them, shall be appropriated to such purposes as are consistent with the end and design of the institution of said society, and as the fellows thereof shall determine.

And be it further enacted, That the first meeting of the said Medical Society shall be held in some convenient place in the town of Boston; and that Edward Augustus Holyoke Esq., be, and hereby is, authorized and directed to fix the time for holding the said meeting, and to notify the same to the fellows of said Medical Society.

ical Society provided that authority should be given the proper officers of the Society to examine candidates and grant a certificate of competence in medical knowledge. This clause appeared to conflict with the rights of Harvard College to bestow medical degrees. The College and the Medical Society were too closely allied to admit of serious conflict, so committees were appointed to adjust the seeming differences.

At the meeting of the Society held October 15, 1783, the following record was entered:*

"Upon the Recommendation of counsel, to consider whether the doings of any of the literary Societies of this commonwealth interfere with the Charter Rights of the Medical Society;

"Voted, That a Committee of three be appointed to take into consideration the above Recommendation, and to confer with any such Societies (upon the subject, as they may think proper) and report:

"Voted, That Dr. Cotton Tufts, Dr, Kneeland & Dr. Appleton be this committee."

At a meeting of the Corporation of Harvard College held March 2, 1784, it was "voted that the President, Dr. Bowdoin and Mr. Howard, be a committee from this Board to confer with a committee sometime since appointed by the Massachusetts Medical Society upon the eighteenth Article in the Medical Institution of the University."

The question was considered at length, and finally the Board of Overseers at a meeting held November 2, 1784, voted: "That Articles 17th and 18th in the Medical Institution be repealed, and the following be enacted in their stead:

"Act 17. That there be an examination of the students in Physic once a year, in the presence of the Governor of the University and such members of the Massachusetts Medical Society and other Physicians and

* Warren and Waterhouse had been inducted Oct. 7, 1783.

Gentlemen as shall desire to attend, which examination shall be made by the medical Professors or Professor, if there shall be at any time but one, and every student in Physic who shall have taken two courses in Anatomy, the Theory and Practice of Physic and Chemistry and the Materia Medica and shall have studied at least three years with some reputable Practitioner in Physic, or having studied two years with such a Practitioner shall have spent another year in addition at the University, pursuing his studies under the direction of the medical Professor; and at such examination shall publicly deliver and defend a dissertation in the Latin or English language on such disease or other medical topic, as shall be assigned him by those Professors with the Consent of the President (at which public exhibition any Gentleman present may propose three questions in English on the subject of the dissertation) and at the end of the examination shall appear to the Professors to be qualified to enter upon the practice of Physic and Surgery, shall be entitled to the degree of Bachelor in Physic.

"But previous to this public examination the candidate shall pass through such and so many private examinations before the medical Professors as they shall judge proper.

"Those students who have attended but one course of lectures may upon their particular application be admitted to such examinations and if found qualified, receive a Bachelor's degree upon their performing the above exercise.

"But those students in Physic, who have not had a college education shall previous to the foregoing examination, satisfy the President, the medical and other Professors and the Tutors, at a meeting for the purpose, of their knowledge in the Latin language and in experimental philosophy, and in such branches of the mathematics as shall be judged requisite to a medical education.

"Act 18. That Bachelors of Physic of seven years standing, and who during that time, have been Practitioners in Physic, may receive a degree of Doctor in Physic upon their being approbated by the medical Professors after such and so many private examinations as they shall judge proper; and delivering in the presence of the Governor of the University and such other gentlemen as shall choose to attend, and defending one dissertation in the Latin and one in the English language on such disease or other useful medical topic as shall be assigned them by the said Professors, with the consent of the President—the Latin dissertation to be printed at their own expense.

"Voted that the following words in Article 19, viz 'every Practitioner in Physic having such certificate' be struck out, and the following be inserted in their stead viz: 'every graduate in Physic.'

"Voted that article 20 be repealed and the following be enacted in its stead, viz: 'Art. 20. Honorary degrees in Physic, which may be con-

ferred on Gentlemen of great eminence in the Profession as a reward of merit shall be free from all fines.'

"Voted that the fees for the medical degrees be established by the Corporation with the consent of the Overseers."

November 29th, 1784, it was "voted that Articles 17 and 18 in the Medical Institution passed by the Corporation, November 2, be repealed and the following enacted in their stead, viz.:

"Art. 17. That every student in Physic who shall have taken two courses in Anatomy, the Theory and Practice of Physic and Chemistry and Materia Medica and shall have studied the space of two full years with some reputable Practitioner in Physic may at the expiration of another year, offer himself a Candidate for a medical degree and after having passed through an examination made by the medical Professors (or Professor if there shall at any time be but one) in the presence of the Governor of the University and of such Members of the Massachusetts Medical Society and other Physicians and Gentlemen as shall choose to attend at such stated times as the Governor shall appoint; and shall also at such public examination deliver and defend a Dessertation in the Latin or English language on such diseases or other medical topic as shall be assigned him by those Professors, with the consent of the President; and at the end of such examinations being in the opinion of said Professors or the major part of them (or of the Professor if there shall at any time be but one) well qualified to pursue the business of Physic and Surgery such student shall be entitled to the Degree of Bachelor in Physic,—Provided nevertheless that those students who have attended but one course of Lectures may upon their particular application, and special reasons pleading in their favor, be admitted to such public examination, and if found qualified, receive a Bachelors Degree, upon their performing the above exercise.

"But the students in Physic who have not had a College education shall, previous to the foregoing examination, satisfy the President, the medical and other professors, and the Tutors at a meeting for the purpose, of their knowledge in the Latin language and in experimental Philosophy and in such branches of the Mathematics, as shall be judged requisite to a medical education.

"Art. 18. That Bachelors in Physic of seven years standing, and who during that time have been Practitioners in Physic, may receive a Degree of Doctor in Physic, upon their being approbated by the medical Professors after being examined by them in the presence of the Governors of the University and such other gentlemen as shall choose to attend; and

delivering and defending one dissertation in the Latin and one in the English language on such disease or other useful medical topic as shall be assigned to them by the said Professors, with the consent of the President. The Latin Dissertation to be printed at their own expense."

The committee appointed by the Medical Society did not report until June 7, 1786. Its report was as follows:

"The Committee appointed on October 15th, 1783, to consider whether the Doings of any of the literary Societies in this Commonwealth interfere with the Charter Rights of this Society, and to confer with any such Societies upon the Subject as they might think proper, reported, That they had attended the business of their appointment and upon examining the Medical Institutions of Harvard College, the Com: were of Opinion that those Institutions did interfere with the Charter Right of this Society to examine Candidates for the practise of Physic & Surgery & to grant Letters testimonial of the Examination of such as shall be found skilled in their profession, in that those Institutions provided for the Medical professors of that College examining their Pupils & granting Letters testimonial or public Certificates to such of them as they judged proper, of their Abilities to practise Physic. Whereupon the Com: applied to the Government of the College for a Conference upon the Subject, which was had, & ended in an agreement that the Com: should confer with the Medical professors of the College & make such arrangements respecting this matter as should be mutually agreed upon for the Honor of both Societies & the advancement of Medical Knowledge.

"This Conference between those Medical professors & the Com: for some reasons unknown to the Com: was never held. The Com: fürther report that it has lately been suggested to them that the Medical Institutions of Harv: College have been altered, whereupon Enquiry was made respecting the Matter and an Acc° of the above Institutions authenticated by the Secy. of the Overseers, was procured, and upon a careful examination the Com: were clearly & unanimously of Opinion that Harvard College Medical Institutions do not, and that no Doings of that or of any other literary Society do, as far as the Com: could find, interfere with the Charter Rights of this Society."

It appears that the matter did not end with this report of the Committee for we have the following record of the Medical Society, January 16, 1789:

"The Committee appointed to state to the Society the Inconveniences resulting from the University at Cambridge exercising the Right to examine Candidates for the Practice of Physic & Surgery, and granting them

Diplomas, beg leave to observe, That express Authority is given to the M. Medical Society by their Charter to examine such Candidates for the Practice of Physic & Surgery as shall offer themselves therefor, and are required to give to such as they shall approve of, Letters testimonial of their examinations, and are moreover laid under a heavy Penalty in case they refuse to examine such as shall offer themselves for that Purpose.

"That at the passing of the Act of Incorporation, voted in 1781, there was at that Time no public Body, specially authorized & designated for the Examination of Candidates for the Practice of Physic & Surgery, nor had any public Body undertaken the Business; of this the Legislature must have been sensible, and at the same Time viewed it of the highest Importance to the Community, that such an authority should be lodged somewhere in order that the Community might from Time to Time be furnished with able and well qualified Practitioners, they accordingly constituted this Society the proper & legal Judges of the Qualifications of Candidates for the Practice of Physic & Surgery; and we conceive that it was the Intention of the Legislature to confine it to this Body, otherwise it seems hard to account for the Injunction to examine & the heavy Penalty laid in Case of Refusal, nor can we better account for such an Authority, being given to the Society if there already existed a Body cloathed with the Power & Authority of examining & licensing Candidates for the Practice of Physic.

"Not long after the Establishment of the Medical Socy. The University at Cambridge founded Medical Professorships vote in 1782, and proceeded at length to confer the Degree of Bachelder of Physic on such as had gone through Two Courses of Lectures, been examined by their Professors, read a Thesis upon some Question proposed to them by their Professors and to give to the Person graduated a Diploma constituting him a qualified Practitioner—and it appears in one or more Instances that such person had undergone an Examination by the Censors of this Society and had been rejected as unqualified for the Practice of Physic & Surgery.

"This Interference of the University has already produced Uneasiness & Jealousy and will further tend to produce animosities & Disputes destructive of the Peace & Harmony of both Societies and will in its operation tend also to retard the Progress of Medical Knowledge, and the Society having attempted measures without success for the removal of this Difficulty we submit it to their consideration whether it will not be expedient to apply to the General Court for an Explanation on the Subject."

"*Voted*, That Drs. Danforth, Rand, Eustis, Jarvis & Williams, be a committee to prepare and present an Address (signed by the President and Recording Secretary) to the Legislature at the ensuing session, upon



EZEKIEL HERSEY.

A. M.; A. B. 1728.

the Subject of the interference of the University at Cambridge, with the Charter Rights of this Society."

That seems to have been the last of this controversy between the University and the Medical Society.

The establishment of the Medical Institution at Cambridge was in line with Morgan's prophecy, contained in his address at the founding of the Philadelphia School in 1765.*

As early as 1770 an alumnus of Harvard, Ezekial Hersey, a physician of Hingham, Massachusetts, bequeathed the sum of £1,000 towards the support of a Professor of Anatomy and Physic whenever one should be established at Harvard College. This bequest was received by the treasurer, November 9, 1772, and, as we have seen, it was voted by the Corporation "That the money be put out to Interest on good security, and that the Interest be from time to time added to the principal until by such addition or the Generosity of others a sufficient fund shall be established for the Maintenance of a Professor." A portrait of this first donor hangs in the faculty room at Cambridge.†

* "Perhaps this Medical Institution, the first of its kind in America, though small in the beginning, may receive a constant increase of strength, and annually exert new vigour. It may collect a number of young persons, of more than ordinary abilities, and so improve their knowledge as to spread its reputation to distant parts. By sending these abroad duly qualified, or by exciting an emulation among men of parts and literature, it may give birth to other useful institutions of a similar nature, or occasion rise, by its example to numerous societies of different kinds, calculated to spread the light of knowledge through the whole American Continent, wherever inhabited."

† Nothing further is heard from this fund other than the readjustment of the investments incidental to the deprecation of securities during the war. At a meeting of the Corporation, June 2, 1785, a committee was appointed to learn whether the whole or any part of the Hersey legacy might not be properly applied to anyone or more of the medical professors. This committee reported (April 7, 1786) that the whole of the

The first medical class was graduated on the 16th of July, 1788. The Corporation records of that date state:

"*George Holmes Hall* and *John Fleet,* who passed their examination on the 8th instant for the degree of Bachelor of Physic, this day produced certificates to the President from

income might be applied towards the Professorship of Anatomy and Surgery, and the Professorship of Theory and Practice were they residents; and that a part of it might be applied were either of the two resident. This condition that the professor should be a resident of Cambridge was the cause of much controversy, and in August, 1787, it was voted that whenever the Professor of Physic and Anatomy shall reside in Cambridge and perform the duties which are now assigned them, or the duties which shall hereafter be assigned them in consequence of Dr. Hersey's bequest, they shall each of them be entitled to one moiety of the income; and, when either of them shall so reside and perform such duties, he shall be entitled to a moiety to be estimated from time to time, according to the value of the public and private securities, and in proportion to each kind."

A committee was appointed to define the duties of Waterhouse, who had become a resident of Cambridge (Sept. 1787). It was decided that Waterhouse should deliver twelve public lectures in the chapel during that year (1787) upon the Theory of Physic, and that this should entitle him to a part of the income from the legacy. In 1788 John Cuming, of Concord, left by will the sum of £300 and one half of a specified estate. The income from this was also to be appropriated to the Professorship of Physic. In 1790 the widow of Ezekial Hersey (Mrs. Sarah Derby) bequeathed £1000, the income of which was to go towards the support of a Professor of Anatomy and Physic. In 1793 Hersey's brother, Dr. Abner Hersey, bequeathed £500. This money was to be used for the same purposes as that given by the former bequest from this family. From these sums was established and maintained the Hersey Professor of Anatomy and Surgery, and the Hersey Professor of the Theory and Practice of Physic. The following is the action of the Corporation in establishing the *first* professorship in the Medical School, Sept. 27, 1791.

"Whereas the late Dr. Ezekial Hersey bequeathed to this University the sum of one thousand pounds, the interest thereof to be appropriated towards the support of a Professor of Anatomy and Physic, which sum has for some years been accumulating by interest.

"And whereas his relict, the late Mrs. Sarah Derby, has bequeathed the sum of one thousand pounds, and ordered the income to be applied to the same purpose, and it appearing to the Board that the designs of these

the Medical Professors of their being qualified for said degree. These certificates being communicated by the President to the Corporation and Overseers, the degree was voted, and both these young Gentlemen were publicly admitted to it immediately after the Masters had received their degrees." The report goes on to tell that the candidates had been previously presented by the President to the Overseers.

"Bachelor of Medicine" was the degree conferred, and prior to 1811 this was the only medical degree regularly given in course. The first "Doctors of Medicine" were the graduates of 1811, and in that year all graduates of the Medical School then living were granted the doctorate at the same time.

worthy Benefactors can be better answered by placing two Professors upon those funds and dividing those branches between them, than by having them united in one, and, as at the same time that their designs would be better carried into execution, more honor would be reflected upon those benevolent and generous Founders:

"Voted, that the income of these legacies be equally divided between the Professor of Anatomy & Surgery and the Professor of Theory & Practice of Physic, and that the former be in the future styled Hersian Professor of Anatomy & Surgery, and the latter Hersian Professor of the Theory & Practice of Physic, and that the salaries from these funds commence June 29, 1792.

"Whereas the foregoing Professorships are established upon permanent funds.

"Voted that the fees of the Professors for the future be regulated by the Corporation and Overseers and that they receive none but such as shall be established by law."

The professors had been paid by such fees as came from the candidates for medical degrees. These were as follows: Candidates who had taken the degree of Master of Arts, forty shillings: those who had taken Bachelor of Arts degree, five pounds. All others a fee of seven pounds.

The Erving Professorship of Chemistry and Materia Medica resulted from a bequest received from William Erving in July, 1791. This consisted of £1000, the interest of which was to be for the use of the Professor

The following account given by Ephraim Eliot, a physician practicing in Boston at the time of the first graduations from the Harvard Medical School, illuminates the occasion,* and the animus of the Massachusetts Medical Society:

"The Massachusetts Medical Society had authority to *examine* such candidates for the practice of physic as should offer themselves for the purpose, and grant diplomas signifying such persons as they found to be qualified for the profession; but they had no power to give degrees. The medical professors had similar powers, and were quite independent of the Medical Society. The University could give degrees and confer titles upon such as passed examination before their professors. Here, it was supposed, there would be some clashing of interests. The number who had been examined by the censor (s) of the society was not great.

"It was not long before the two institutions were at issue. None had been examined by the university; and no degrees, but such as were honorary, had been granted. About the year 1788, George Holmes Hall and John Fleet offered themselves for examination to the censors. Dr. Oliver Prescott, of Groton, Drs. Lloyd, Gardner, Danforth, and Rand, were then in the office,—a formidable host. The candidates were students in Dr. Warren's surgery, had dissected much, and were probably far better qualified than any who had presented themselves; in fact, the doctor had bestowed great pains in regard to their qualifications. Dr. Prescott, being hard of hearing, said nothing; and I think Danforth's business prevented his attendance, but he heartily joined in putting them down. It was judged that now was the time to mortify their instructor. Various times were appointed for attending to the business, and it was as often postponed; till the young gentlemen actually became confident that the censors, sensible of their own deficiencies, were afraid to encounter them. At length, the time came; and they found it a fiery trial. They then became convinced that all knowledge was not shut up in the brains of the professors: they were set aside, and could not obtain certificates. Here the censors thought the matter would drop; but they were mistaken. Dr. Warren was neither mortified nor foiled. He had wished for an opportunity of commencing the examinations at Cambridge; this was *a good* opportunity. Lectures were immediately commenced, and got through before Commencement. This was an unexpected matter, and measures were taken to prevent its having effect. President Willard was applied to, to put a stop to the progress of the professors, lest it should

of Chemistry. He likewise gave the College his books upon Mathematics and Fortification.

*Massachusetts Historical Society Proceedings, 1863-64.

generate serious misunderstandings between the two societies. Dr. Rand called upon me, and desired me to prevail upon Dr. Fleet to suspend the matter, assuring me that the censors would make such representations as would effectually prevent him from getting into business, and that both he and Hall would be ruined. I was applied to, as I was like to, and did, become his brother-in-law; but I had no influence over him, and declined any interference. A public examination was held in the philosophy chamber of the University, at which many persons not of the profession attended.

"They (Fleet & Hall) were thoroughly sifted; and they afforded much gratification to all who were present. On the Saturday previous to Commencement, notice was sent that the censors would meet for their re-examination. They attended; when a few questions were asked, and they were passed. On Commencement-day, not having been informed of this matter, a feeble attempt was made by some of the Overseers, that the degree of Doctor of Physic should be withheld. Having been informed of the re-examination, opposition was withdrawn; and George Holmes Hall, who received the degree of Master of Arts in 1781, and John Fleet *ad eundem* in 1788, were admitted the first in course to the degree of Doctor in Physic."

AMERICAN MEDICAL LITERATURE
OF THE
EIGHTEENTH CENTURY.

CHAPTER V.

AMERICAN MEDICAL LITERATURE OF THE EIGHTEENTH CENTURY.

An illustrious son of the Harvard Medical School* once said: "The state of medicine is an index of the civilization of an age and country—one of the best, perhaps, by which it can be judged."

This is suggestive, whatever of truth there may be in it, and so it is interesting briefly to review the state of medicine in this country during the eighteenth century as the contemporary literature shows it to us. Packard† enumerates sixty medical writers who appeared here prior to the Revolution. Their essays cover many subjects and number over a hundred and twenty-five themes; and, among others, Ministers of the Gospel wrote medical tracts for the guidance of the public in the seventeenth and early part of the eighteenth centuries.

Cotton Mather claims our interest for his connection with the introduction of inoculation. In his fashion of treating theological matters under the disguise of medical titles he had a certain naiveté which appealed to simple folk. Witness his "Mens Sana in Corpore Sano. A Discourse on Recovery from Sickness." "Wholesome Words, A Visit of Advice,

*O. W. Holmes, in Address, "The Medical Profession in Massachusetts," Lowell Institute Lectures, Jan. 29, 1869.

†F. H. Packard, "History of Medicine," p. 429, et seq.

Given unto Families That are Visited with Sickness, By a Pastoral Letter, briefly declaring the Duties incumbered on all Persons in the Families that have any sick Persons in them." Others are "Insabilia, An Essay upon Incurables, aimed at the Comfort and Counsel of many who encounter things for which there is no Remedy but Patience." "Fabrifugium, An Essay for the Cure of Ungodly Anger." "Euthanasia, or Sudden Death made Happy and Easy to the Dying Believer," and "Angel of Bethesda." This last has something like sixty-six "Capsulas," or chapters, and is a great jumble of fancy, superstition and pedantry. Occasionally he strikes somewhere near the truth. For instance, in speaking of remedies for the cure of diseases supposed to originate from animalcular infection, he says: "Mercury we know thee; But we are afraid thou wilt kill us too, if we employ thee to kill them that kill us. And yett, for the cleansing of the small Blood Vessels, and making way for the free circulation of the Blood and Lymph—there is nothing like Mercurial Deobstruents." That sounds familiar even to us moderns.

The one chapter in Mather's production which has anything like medical merit is in the appendix to "Variolae Triumphatae." He says: "There has been a *wonderful practice* lately used in several parts of the world, which indeed is not yet become common in our nation. I was first informed of it by a Garamantee servant of my own, long before I knew that any *Europeans* or *Asiaticks* had the least acquaintance with it, and some years before I was enriched with the communications of the learned Foreigners, whose accounts I found agreeing with what I received from my servant, when he

shewed me the Scar of the Wound made for the operation: and said, That no person ever died of the *small-pox* in their country, that had the courage to use it. I have since met with a considerable Number of these *Africans* who all agree in one story; That in their country *grandy-many* dy of the small-pox; But now they learn this way: people take juice of *small-pox* and *cutty-skin* and put in a Drop; then by 'nd by a little sicky, sicky: then very few little things like *small-pox;* and nobody dy of it; and nobody have small-pox any more. Thus, in *Africa,* where the poor creatures dy of the *small-pox* like Rotten Sheep, a merciful God has taught them an *Infallible preservative.* 'Tis a *common practice,* and is attended with a *constant success.*"

Mather was not the only minister who wrote upon medical matters. But a beginning was made by those better qualified, and in the early part of the eighteenth century well educated physicians were found who did much to separate minister and medicine. The three most conspicuous writers of this generation were Boylston, Douglass, and Colden.

Cadwallader Colden* was graduated in Arts from the University of Edinburgh in 1705. There also he received the M. D. in 1708, when he was scarcely twenty years old. In 1710 we find him in the new city of Philadelphia. During the five subsequent years he practiced his profession there studiously and with zeal. Knowledge was yet young and congenial minds too few, even in Philadelphia, to satisfy this enthusiast, so he returned to the old world. The distinguished philosopher, Edmund Halley, recognized the possibilities in

* Much of the following account of Colden is from the sketch by Mumford in his "Narrative of Medicine in America."

such a mind, and Colden became his protegé. A valuable paper on Animal Secretion read by Halley before the Royal Society was one of Colden's first productions. This brought the young author recognition from English literary and scientific men of the day, and friendships then formed were of great value in his future work.

Then he married in Scotland, and returned to America in 1716. In the following year we read of his efforts to obtain from the Pennslyvania legislature an allowance for the sick poor of Philadelphia, together with provision for a public physical lecture, to be paid for by a tax of one crown upon every unmarried man over twenty-one years of age. The proposed act provided also for a post-mortem medical examination upon the bodies of all persons, and the examiners were to be paid about seventy-five cents for each case. This act was never passed by the legislature, but it shows the foresight and good sense of this early practitioner from whom so much of the best early American medicine resulted.

Perhaps it was Philadelphia's lack of appreciation which prompted Colden to forsake that place, to abandon practice, and to settle in New York. There we find him in 1718, becoming identified with the political life of the future metropolis. He is known in history as " Governor Colden." He was surveyor-general of the province, master in chancery, member of the Governor's Council, and finally lieutenant-governor. In that last position he often performed the duties of Governor owing to the illness or death of several governors holding office during his fifteen years' encumbency (1761-1776). The Revolution saw the end of his political life. It

was an honorable career worthy of the good citizen and physician.

The fact which we note of Colden is that at this early period there was at work here an active, highly cultivated, far-seeing, well-educated physician, whose life and writings served as a healthy stimulus to many succeeding generations.

Colden directed his attention from the outset to the climate and botany of this country. His first work published here was issued in 1720, and is entitled "An Account of the Diseases and Climate of New York." In this he wrote: "The air of the country being almost clear, and its spring strong, we have few consumptives, or diseases of the lungs. People inclined to be consumptive in England are often perfectly cured in our fine air, but if there be ulcers formed, they die in a little time. * * * The climate grows every day better as the country is cleared of the woods; and more healthy, as all the people that have long lived here testify. I therefore doubt not but it will in time become one of the most agreeable and healthy climates on the face of the earth. As it is at present, I prefer it to the climate of England, and I believe that most people that have lived any considerable time here, and returned to England will confirm this."

Colden's daughter shared her father's labors in botany, and Linnaeus named a plant of the tetrandrous class *Coldenia* in honor of this young lady, who was the first to describe it. Colden wrote much on the physical conditions of the country, as well as on the history of the diseases most prevalent. He advocated a cooling regimen in the case of fevers, and strongly opposed the then prevalent mode of treating small-pox. In the epidemic of 1741-42, his investigations led to a

timely treatise upon the influence of marsh exhalations, moist air, damp cellars, filthy shops and dirty streets, factors in the causation of disease not so well recognized then as at the present time. This work brought him the thanks of the authorities and resulted in the establishment of a useful plan of drainage and hygiene for the town. His treatises upon "Cancer" and "On the Virtue of the Great Water Dock" attracted the regard and friendship of Linnaeus. That friendship was life long, and is pleasantly shown in the "Colden Letters" compiled by Professor Asa Gray. These essays well repay the reading, and throw much light upon this early physician now so rarely mentioned in medical history.

In the epidemic of diphtheria which worked such widespread havoc in 1735, Colden and his Scotch fellow-countryman, Douglass, wrote comprehensive accounts of that distemper. Colden's "History of the Five Indian Nations," published in two volumes in 1741, brought local popularity to the author. Then he investigated and wrote upon gravitation and similar questions of physics. In his voluminous correspondence with Franklin are evidences that he was closely identified with, if not actually the author of, many of the publications on philosophy and physics generally associated with that celebrated American name. Franklin gives Colden the credit of suggesting the formation of the American Philosophical Society with which both are inseparably identified. Colden was the inventor of stereotyping, an honor more often erroneously given to an ingenious Frenchman of the Napoleonic era. Perhaps the one strictly medical work of Colden which should be remembered is his "Treatise on Wounds and Fevers," published in 1765. This was for many years the

American authority, and constant reference to it will be found in the publications of the later years of that century.

A further consideration of the diversified talents, wide acquaintance and extensive correspondence of this scholar-physician would lead us beyond our purpose. Certainly he was a factor to be reckoned with in reciting the rise and progress of medicine in America before the Revolution. So let us note that a beginning of progress has been made, and pass on to Massachusetts, which comes nearer to our story. Here we find Douglass and Boylston.

William Douglass, like his contemporary and correspondent Colden, was a Scotchman born. He had education and ability, two advantages which unfortunately he often used with poor judgment. He arrived in Boston about 1718, and among his first acquaintances was Cotton Mather. To that positive theologian the skeptical man of science presented letters of introduction. From the first, Douglass was *persona non grata* at Mather's house. He pursued the acquaintance without success, and unwisely offered gifts; unwisely, for among them were some recent books of scientific literature from London, containing the famous paper on "Turkish Inoculation" by Timonius.

Emanuel Timoni Alspeck, a graduate of Padua as well as of Oxford, was residing in Constantinople in the year 1703. There he observed a marked difference in those sick with small-pox contracted in the natural way and those to whom the virus was artificially communicated, and he wrote an account of his observations to Dr. Woodward, of London. His letter was published in the "Philosophical Transactions" in 1717. The success of the Turkish method had likewise been

noted by Pylarinus, a Venetian physician, who published an account of it in 1715 at Venice. In our days, when electricity has annihilated all estimate of time and space, when medical societies, schools, and hospitals exist beyond needs, when medical publications and means of inter-communication have multiplied to a state of degeneracy, it is difficult to understand how such an important observation should have slumbered unnoticed for four years; and that in an age when the one great scourge of the world—small-pox—was mowing down towns, tribes, and races of men.

Mather read, thought, and acted. Douglass scoffed, disputed, and abused. Angered, no doubt, by his loss of a rare opportunity, he took every means to minimize the value of the discovery, and the medical profession have little to be proud of in this episode. The tale has in some measure been given in the previous pages. Douglass wrote many essays upon the subject, and the question became one upon which grew much of the literature of that generation.*

The best work of Douglass is his "Practical History of a New Epidemical Eruptive, Miliary Fever, with an Angina Ulcusculosa which prevailed in *Boston* in the years 1735 and 1736." This was one of the most valuable essays upon diph-

*In 1722 Douglass wrote "Inoculation of the Small Pox as Practised in Boston, considered in a Letter to A[lexander] S[tuart], M. D. F. R. S., in London." "Inoculation, The Abuses and Scandals of some late Pamphlets in Favor of Inoculation, modestly obviated, and Inoculation further considered, in a letter to A[lexander] S[tuart], M. D. F. R. S." "Postscript to the Above, Being a short answer to Matters of fact, &c, misrepresented in a late doggerel Dialogue (between Academicus and Sawny, &c)" Later (1730) he wrote "A Practical Essay concerning the Small Pox, &c," and "A Dissertation concerning the inoculation of the Small Pox."

theria up to that time. It is inscribed:* "To a medical society in Boston," and is prefaced thus: "Gentlemen, This piece of Medical History does naturally address itself to you, considering that I have the pleasure of being one of your number, that have been fellow labourers in the management of this distemper, and therefore competent judges of this performance, and that where difficult or extraordinary Cases have occurred in any of your private practice, I was favored to visit the Patients in order to make a minute clinical enquiry; in short, without your assistance, this piece would have been less perfect, and not so well vouched." Douglass' letter to Colden dated Feb. 18, 1735-6† has an historical interest on account of its reference to what was probably the first medical society in this country:—"* * * we have lately in Boston formed a medical society, of which this gentleman (Dr. Clark, the bearer of this letter), a member thereof, can give you a particular account. We design from time to time to publish some short pieces; there is now ready for the press number one, with this title page:

"NUMBER ONE

"MEDICAL MEMOIRS

"CONTAINING

"1. A miscellany. Practical introduction.

"2. A history of the dysentery epidemical in Boston in 1734.

"3. Some account of a gutta-serena in a young woman.

* Green's "History of Medicine in Massachusetts."

† Massachusetts Historical Collections, fourth series, vol. ii.

"4. The anatomical inspection of a spina ventosa in the vertibrae of the loins in a young man.

"5. Some practical comments or remarks on the writings of Dr. Thomas Sydenham, *Published by a Medical Society in Boston, New England.*" *

This first Memoir was never published.

Another communication, said to be from Douglass, appeared in the "Boston Weekly News-Letter" of January 5, 1737, and is addressed "To the Judicious and Learned President and Members of the *Medical Society in Boston.*" It is signed "Philantropos," and deals with the question of the registration of regular medical practitioners throughout the province, as the law of the present time provides in many states.

In 1747 Douglass had a controversy with the assessors, and in his statement acknowledges an estate worth £2,615 2s 0d. The assessors had presumably "raised" his tax rate on account of the following interesting communication, which was thought to refer to Douglass: "Information being given to the House by the member from Worcester that a certain Gentleman of the Town of Boston (was) well disposed for the encouragement of Physic within the Province and for that

* This letter is now among the Colden papers in the possession of the New York Historical Society.

Gutta serena is that which Milton refers to as the cause of his blindness.

"Eyes that roll in vain
"To find thy piercing ray, and find no dawn:
"So thick a drop serene hath quenched their orbs."
Today it is called Amaurosis.

"Spina ventosa" indicates an old idea that the texture of bones dilates, seemingly distended by air.

good Purpose would cheerfully contribute out of his own Estate a considerable Sum of Money provided this Court will join therein in making a Grant of Lands or otherwise establish a good Fund for the valuable Ends aforesaid; and the same being considered;

"Ordered: That the members from Boston, Charlestown, Roxbury, and Chelsea be a Committee to treat with the Gentleman, hear him on his Proposals, and report their Opinion of what may be proper to be done for the arrangement of so good a scheme." Nothing further was done in this matter at that time.

Douglass's "History of the British Settlements in North America," in two volumes (1748 and 1753) must not be read seriously. The Almanac he published in 1743-44 showed him to possess some abilities as a mathematician, but this, like many of his works, justified the statement often made of him: "Always positive, and sometimes accurate."

Zabdiel Boylston has been considered somewhat in detail elsewhere in this book. His contributions to the literature of the century call for further mention in this chapter, as with Mather and Douglass his writings relate almost entirely to small-pox and inoculation. Educated under his father, he early acquired a good knowledge of Botany and Natural History. These branches he "successfully cultivated," says Thacher, "and established a correspondence with several learned societies and Eminent individuals in England, particularly with Sir Hans Sloane, president of the Royal Society." No further record seems to exist as to the nature of this correspondence.

The following paper by Boylston was one of the earliest of

the period upon Small-Pox.* On account of its historical value it is here reproduced. It is entitled "Some Account of what is said of Inoculating or Transplanting the Small-Pox. By the Learned *Dr. Emanuel Timonius* and *Jacobus Pylarinus* with some Remarks thereon. To which are added A Few Queries in Answer to the Scruples of many about the *Lawfulness of the method.*" Published by Dr. Zabdiel Boylston, 1721. "Some Account of Inoculating or Transplanting the Small-Pox; And the Benefit and Safety of the Practice.

"The Publick having been lately entertained with a very dark and partial Account of this *New Method* of receiving the *Small Pox:* and this Account being given as is pretended from the very Letters of Dr. Timonius and Pylarinus: it is thought reasonable and fitting to lay before the Publick the following *Abstract* of what those *Learned Gentlemen* have said of this Practice. But because the *Gentleman* who only hath these Letters by him, refuses now to lend them; the Account here following is chiefly taken from a known *Letter* written by a Learned Gentleman of *Boston* to the Worthy Physicians of the Town.

"A Faithful Abridgment of Two *Accounts* in the *Philosophical Transaction.*

"I. Our first Communication comes from Dr. *Emanuel Timonius a* Renowned Fellow of the *Royal Society* at *London* (well known to some in *Boston,* who also actually knew the Truth of the matter of Fact now going to be related) who writes from *Constantinople in December,* 1713. And he informs to this effect: The practice of procuring the *Small Pox* by a sort of *Inoculation,* has been introduced among the *Constantinopolians* by the *Circashans* and *Georgeans,* and other *Asiatics* for about Forty years. At the first the people were cautious and afraid: but the *Happy success* on *Thousands* of Persons for Eight years now past has *put it out of all suspicion.* The Operation has been performed on Persons of all Ages, both Sexes, differing Temperaments & even in the worst Constitution of the air: and *none that have used it ever died of Small Pox,* tho' at the same time it were so malignant, that at least *half* the *People died,* that were infected with it in the Common way.

"They that have this *Inoculation* practiced on them (he says) are subject unto very *Slight Symptoms,* and hardly sensible of any sickness, nor do what *Small Pox* they have ever leave any Scars or Pits behind them.

*From Massachusetts Historical Collection.

"They make choice of as Healthy a Young Person as they can find, that has the *Small Pox* of the best sort upon him, on the Twelfth or Thirteenth Day of his Decumbiture. With a Needle they prick some of the large *Pustules*, and press out the Matter coming from them into some convenient Vessel of Glass (or the like) to receive it, which ought first of all to be washed very clean with warm Water. A convenient quantity of this Matter being thus collected, is to be stop'd close, and kept warm in the bosom of the Person that carries it (who ought rather to be some *other Person*, than what visited the Sick Chamber for it, lest the Infection of the *Small Pox* be convey'd in the *Garments*, as well as in the *Bottle*, and the intended Operation be hurt by the *Infection* being first conveyed another way, and so it should be conveyed as soon as may be to the Person that is waiting to be the Patient.

"The Patient being in a warm Chamber, is to have several small Wounds made with a Surgeon's Three edged Needle or with a *Lancet*, in two or more places of the skin (the best Places are in the Muscles of the Arm) till some drop of Blood follow: And immediately let there be dropt out a drop of the Matter in the Glass, on each of the Places: and mix'd well with the Blood that is issuing out. The Wound should be covered with half a Walnut shell, or any such concave Vessel, and bound over that the matter may not be rub'd off by the Garments for a few hours: And now let the Patient (having Fillets on the Wounds) keep House, and keep warm, and be careful of his Diet:

"The Custom at *Constantinople* is to abstain from Flesh and Broth for Twenty Days or more. They chuse to perform the Operation either in the beginning of *Winter* or *Spring*. The *Small Pox* begins sooner in some than others, and with lesser Symptoms in some than others; but with *happy success in all*. Commonly Ten or Twenty *Pustules* break out; here and there One has no more than two or three. Few have a *Hundred*. There are some, in whom no *Pustule* rise, but in the Places where the Incision was made; and here the *Tubercles* will be purrulent; yet even These have never had the *Small Pox* afterwards, tho' they have Cohabited with Persons having of it. No small Quantity of Matter will run for several Days from the Places of the *Incision*. The *Pocks* arising from this Operation are dried up in a short time, and fall off, partly in thin skins, and partly vanishing by an insensible wasting.

"The Matter is hardly so thick a *Pus* as in the common *Small Pox*, but a thinner kind of *Sanies*, whence it rarely Pitts, except at the Place of Incision, where the *Cicatrices* are never worn out, and where the matter is more of the common sort.

"If an *Apostm* should break out in any (which is more frequent in Infants) yet there is no fear, for 'tis heal'd safely by Suppuration.

"They scarce ever use the matter of the Infectious Small Pox to serve the Designs of a new Infection. The Inoculation being tryed on such as have had the *Small Pox* before, it had no effect at all on them. *Dr.*

Timonius affirms that he *never yet observed any bad Consequences* of the Practice which now so many do come into.

"II. Since this Communication from Dr. *Timonius* there came to the Royal Society a further, from an Eminent Person whose Name is *Jacobus Pylarinus;* the *Venetian Counsul* at Smyrna; and who appears to have had no knowledge of what had been written by the former. It is Entitled, *A New and Safe Method of Exciting the Small Pox by Transplantation.*

"This Gentleman observes, That this *Wonderful Invention* was first found out, not by the Learned Sons of Erudition, but by a Mean, Coarse, Rude sort of People, for the *succor* of *Mankind* under and against one of the most *Cruel Diseases* in the World. It was rarely if ever used among People of Quality, until after the beginning of the present century. A Noble *Grecian* then in distress for his Four little Sons, less the *Small Pox* might bereave him of them, consulted with him about using the *Inoculation* upon them. At first, his Ignorance of the Matter, made him decline giving any Advice upon it; But a *Grecian Woman* who was a notable *Inoculatrix*, happened to come in, while they were discoursing of the Matter, told them so much about it, that the Experiment was resolved on. The Woman managed in her way, upon all Four Sons. The Three Younger, all of which were under Seven Years of Age, felt a very *gentle Illness*, had very *few Pustules*, and in about a Week all Fere and Hazard was over with them. The Eldest, about Eight Years old, was taken with a malignant Fever, and (tho' he had not many Pustules) narrowly escaped with his Life. Pylarinus imputes this to an *Atrabilianous* and otherwise Humorous & Unhealthy constitution of the Lad, and a neglect of using such *Preparatory Expiation* of his Body, as they had been advised unto. But upon this *Happy Success*, it was wonderful to see what a *Multitude* of *People* of *Fashion* presently followed the Example. So that at this Day, *every one does* without any Hesitation, and with all security imaginable, practice the *Transplantation:* except here and there a few Cowards that are afraid of their Shadows. Indeed, the *Turks* whose Faith is Fate, is as we know, and who are a more Indocible sort of Animals *do not yet* much come into it.

"*Pylarinus* instructed by his Greek Operatrix, directs to take a *Proper Season* for the Infection. She would use it only in the Winter, but he thinks the *Spring* may do as well.

"The Fermenting *Pus* must be taken from the mature Pustules of a good Sort, in a Young Person of a Good Constitution, kept Warm in a close Vial, and hastened unto the application.

"The Air of the Chamber must be kept very Temperate. The Greek *Operatrix*, prick't more places, and less fleshy ones than *Pylarinus* approved of; with an oblique stroke pricking the Places, with an Iron, or Golden Needle dropping and thrusting the *Pus* into the Wound; and so binding all with Fillets. Her way was thus to prick the *Forehead*, the

Chin, both *Cheeks*, both *Wrists*, both *Insteps*. This was doubtless overdoing. *Pylarinus* affirms that some have done the Business, with *no more than One* little Incision in the Arm, and it has done very well. (So it has been with such *Africans*, as have shown us the Marks of their Inoculation.)

"They must not keep their Beds more than is necessary. *Wine*, *Flesh*, and *Broth* must be laid aside.

The Ferment comes into Action in some sooner than in others. Usually the *Small Pox* (as far as it may be called so) appears on the *Seventh Day;* sometimes on the very *First*.

"The symptoms prove *Remiss* or *Intense* according to the various Constitutions of the Bodies. The *Small Pox* proves of the *Distinct Sort;* and there will be but few of them; it may be Ten, or Twenty, rarely a *Hundred*.

"In some *few* the *Incision* has produced no *Small Pox* at all: but the Persons have afterwards in the common way been taken and handled with it like other People. The Wounds made for the *Incision*, prove often very sore. And with some they degenerate into Apostems. Yea, These do swell sometimes, and rise, and fall, and rise again!

"There has also happened on this Occasion an *Abscess* with Suppuration, in some Emunctory of the Body; But this is very rare *Occurance*.

"In Fine. *Pylarinus* affirms: It was hardly ever known, that there was any *Ill consequences* of this *Transplantation*. But the *Business* being well and wisely managed, & the Body being by a skilful Physician well-prepared, you may depend upon it (*he says*) in an ordinary way, there can be *nothing but a Good Issue of it*.

"Remarks:

"I. Let it be considered, That these Communications come from Great Men, and Persons of Great Erudition and Reputation, and are addressed unto very Eminent Persons. Let it be also considered that with the Approbation of the Royal Society (as Illustrious a Body as are in the World) their Secretary the celebrated Dr. *Halley*, has published these things, as worthy to come into the notice of Mankind.

"II. There is at this Time a considerable Number of *Africans* in this Town, who can have no Conspiracy or Combination to cheat us. No body has instructed them to tell their Story. The more plainly, brokenly, and blunderingly, and like Ideots, they tell their Story, it will be with reasonable Men but the much more creditable. For that *these* all agree in *one Story;* 'That abundance of poor Negro's die of the *Small Pox*, till they learn this *Way;* that People take the Juice of the *Small Pox*, and *Cut the Skin*, and put in a drop; then by'nd by a little *Sick*, then few *Small Pox;* and no body dye of it: no body have *Small Pox* any more.'

Here we have a clear Evidence, that in *Africa*, where the Poor Crea-

tures dye of the *Small Pox* in the common way like Rotten Sheep, a Merciful God has taught them a *wonderful Preservative.*

"It is a *Common Practice,* and is attended with *Success.* I have as full Evidence of this, as I have that there are *Lions* in *Africa.* And I don't know why 'tis more unlawful to learn of *Africans,* how to help against the *Poison* of the *Small Pox,* than it is to learn of our *Indians,* how to help against the *Poison* of a *Rattle-Snake.*

"III. Is it possible to conceive, that this Practice should continue among People *Forty Years* together, and grow more and more into repute, and at last be put out of all *Suspicion,* and yet that there should be any Truth in the Reports of People's *dying* under the *Operation,* or being liable to the *Small Pox* after it? Had People's Limbs perished, or had they been liable to the Small Pox after it, we may be sure a few Examples would have put an end to the Practice *Forty Years* ago. Good Readers, Judge calmly, and like reasonable Men.

"IV. The Author of these *Abridgments* address'd them unto those, who had the *Originals* in their Hands; and therefore it cannot be thought, that it was not as *Faithful a Report* as he could make of the matter; But it having been insinuated, that there might be a more full and perfect Relation, The Author desires it, and I desire it My self, That the Accounts given in the *Philosophical Transactions* be permitted by the Owner to come abroad, and be published *Word for Word,* that *impartial Men* may see *with their own Eyes,* the true state of the Case.

"V. It might be easy for me to make Answers to the Scurrilous things lately Published against me, and satisfy the Publick of the *Falsehood* and *Baseness* in them. But I think it rather becomes a considerate Man to decline *foolish Contentions;* especially at a time, when there is a *grievous Calamity* upon us, that calls us (instead of railing at one another) to Unite in Prayers to Almighty God, for His Mercies to us. And therefore if any think to go on with their *Calumnies* & *Fooleries,* I shall not think fit to take any Notice of them. What I do (I hope as it has hitherto done) will *vindicate itself* with People of Thought and Probity.

"VI. I have made my *Experiments* with all the *Disadvantages* that can be imagined, on *Old* and *Young,* on *Strong* and *Weak,* on *Male* and *Female,* on *white* and *Black,* and in the *worst Season* of the Year; and on *greater Numbers,* than I judge proper (considering the unaccountable Rage of unadvised People) to mention; But more than *twice Seven,* I can assure you; and it has succeeded well in all, even beyond Expectation.

"VII. We are yet but *Learners;* and hope through Experience to grow more expert in our Practice. In *some* of my *experiments* hitherto, I have found the *Fever* somewhat more *intense* for a few Hours before the *Eruption,* and the Number of the *Pustules* to be somewhat more than

usual in the *Levant*. Whether this be from the *Season of the Year*, or our *Different Climate*, or our *high way* of *Living*, or our want of more *Experience* I cannot say, till I see further. But Experience declares things to fall out *for the main*, just as the Renowned Timonius and Pylarinus have related. And I have hitherto by the Blessing of God been able with ease to manage what *Fever* my Patients have had, and have never done any thing, but what every body knows is done in other common Fevers. Upon the first *Eruption* this *Fever* abates and goes off, the Patients grow so easy, that one has much ado to keep them in the condition of Patients. They have not the least Touch of that *Second Fever*, which People generally dye of in the common way. The *Pustules* are *very few* in some; in others, they are two or three *Hundred*, but at the worst, nothing to what is usual in the ordinary way of Infection. They quickly dry away. The Patients are abroad again, sooner than they who are infected in the common way; and they are on all accounts as well as they were before.

"The Sores of the Incision digest and heal as well as any other common Sores do, and if they should grow angry or troublesome, a very little Skill and Medicine will serve to cure them. From all I have hitherto see, there can be no more ill consequenec of them, than from a sore Finger neglected.

"We are informed that there is now and then, but very rarely, a little Abscess in some Emunctory of the Body; but we have met with no such thing in our Practice, and we think when such did, or may happen, that it was, or may be from neglect, or want of Skill in the Practitioner: nor have our Patients hitherto had the Boils or other Swellings which are common in the ordinary Small Pox, so much less is the Blood and other Juices corrupt in this, than the ordinary way. Now to form a Cry of the *Plague* on this occasion, as if the Practice would bring the *Plague:* This is so excessively ridiculous, that it is a wonder any People can think, much less, talk so. Are there not a Thousand People in Town and Country, that have had such Swellings and Sores as *Timonius* and *Pylarinus* mention, that come from Colds, ill Habits of Body, or other causes as well as from the *Plague?* And was it ever known that the *Plague* was produc'd in this way of Practice? They that have hitherto been under the Operation among us, agree in declaring, that they have suffered in a manner *nothing;* and that they would rather undergo it *several times*, than so much as once undergo the *Small Pox* as 'tis generally suffered in the common way; tho' they should be sure of surviving it. And some of them (who are very *religious People*) have published to the World their Thanks to Almighty God, for shewing them this way to escape Death and Misery. Indeed for any thing that yet appears, here is a Discovery, that is a great *Blessing to Mankind*, and should be thankfully received: A way to defend ourselves against a dreadful and

a deadly Disease, by *over ruling the way* of it's coming at us, when we see 'tis coming. Many *Lives* might be saved, some *Time* also, and some *Charge,* (which *some it may be,* consider) and the Health of the Town much sooner restored: if the Practitioners and the People in the Town would come more into this Practice.

"The other *Clamours* and *Bugbears* having been conquered, all that now remains is this; The *People* will *have the Small Pox again.* The only Answer that need be given is this; we have never yet *credibly heard any Instance* thereof. And those, who have passed under the *Inoculation* or *Transplantation,* are every Day visiting, and attending the Sick; with all the assurance and safety that can be. Some will confidently affirm, that to their Knowledge a Man may have the *Small Pox a second Time* in the common way. And yet this hinders not the Encouragement of them who have had it once to be no more afraid of catching it.

"The *Case of Conscience* distresses many worthy Good People. The Case in short we take to be this. 'Almighty God in His great Mercy to Mankind, has taught us a *Remedy,* to be used when the dangers of the *Small Pox* distress us; upon the use of which *Medicine,* they shall in an ordinary way be sure not to have it so severely as in the other way, and consequently not to be in such danger from this dreadful Distemper, and also to be delivered from the terrible *Circumstances* which many of them who recover of the Distemper do suffer for it.'

"Whether a Christian may not Employ this *Medicine* (let the matter of it be what it will) and humbly give Thanks to God for His *good Providence* in discovering of it to a miserable World; and humbly look up to His Good Providence (as we do in the use of any other Medicine) for the success of It? It may seem strange, that any wise christian cannot answer it.

"And how strangely do Men that call themselves *Physicians* betray their *Anatomy,* and their *Philosophy,* as well as their *Divinity* in their invectives against this Practice? For in the First place, they make a mighty bustle about *Malignant Filth* infus'd into the Mass of Blood, &c. as if there were no Difference between injecting a quantity of some poisonous Matter in some large *Blood Vessell,* and that of applying a *Drop* outwardly to the *Scarified Skin,* which when we consider appears to be only a drop of that which our Skins are fill'd with when we are full of the *Small Pox,* and a considerable part of which is returned into the Blood again, and yet the Sick does very well. And further, when this Drop is apply'd to a Person who has had the Small Pox before, and altho' it enters and is receiv'd by Nature in such, as well as others, as I have experienc'd, yet nature is able to cast it off without the Physicians help; and that agrees with what our Author *Timonius* tells us; that when it has been try'd on such as have had it before, it has had no effect.

Secondly, And as to their *Philosophy*, that the People *will have it again*, this is a wonder to me; when I see the Fever produc'd as is necessary to seperate and cast out the *Pocky matter*, and that they have a fair *Pock* or *Pustule*, and this capable of Infecting and producing the *Small Pox* in the ordinary way on others, and to the same Degree, this renders it with me beyond all doubt, that they who have had it once thus in this way, are as well securd from having it again, as those who have had it favourably in the other way, which hath been prov'd by those that have had but one or two Pustules. Constant Experience has also confirmed it in many thousands of Instances. But what makes this Practice so valuable to us, in my Opinion is, that we shall escape the Violence, Rage and Hazard that we are expos'd to in the *common way;* except we are infected before, as we are certain poor Mrs. *Esther Webb* was—— And even *there* we may hope that the Sores of the Incisions may help to carry off the Morbisick matter, and save the Patient; for this Person is recovered, altho' she had one of the worst Sort that ever was known. And much more on this Head might be said, why this way of *Infection* is more safe and easy, than that of the *Common way*, but this may suffice for the present.

"And as to the *Divinity*, they would limit God in His Blessing of some one or other particular part, or particle of His lower Creation, us'd by the Physician or Surgeon to prevent, moderate, or alter, or cure a Disease in their Patient; the which I never yet heard was denied the Physician or Surgeon to use as aforesaid by God or Man.

"But for this I refer my self to the following Queries.

"N. B. As to the spiteful and Scurrilous things written against me and this Practice, at present I shall take no further Notice of them, but remind the Writers of the ill natur'd Dog in the Fable, that would neither eat the Oats himself, nor let the Horse eat them; So neither will these use a true and certain way to save the Peoples Lives, nor are they willing to let any one else use it to save them.

"A Few Quaeries humbly Offered.

"I. If it should be so that the Compassion of God to His Creatures, should Enlighten us with the Knowledge of a *Sweat* or a *Purge*, that would *Certainly*, or but *Probably* secure us from ever taking the *Small Pox*, I *enquire*, Whether any People would be so very foolish as to judge it *Unlawful* to take such a Remedy. Or, would not every Wise Man think, that all the *Days of a whole year*, were too few to be turn'd into *Days of Thanksgiving*, for the Discovery of such a Blessing to a Miserable World? Let the matter of the *Sweat* or *Purge* be what they will; 'Tis all one for *that*. Suppose it the Powder of *Toads*, or the Powder that *Johannes Anglicus* cured Agnes with; or let it be a *Succus Variolatus;* 'Tis all one for *that!*

"II. Physicians have very often given their Patients a *Salivation*, to

remove, yea, and sometimes to *Prevent* grievous Diseases. Thousands have Died in and from that Operation; yet because Thousands have got Good by it, the Operation is every Day repeated. There is no body so Impertinent as to call this a *Tempting of Providence.* I *Enquire,* Why a Despumation, or, An Operation that will, we must not say, *Salivate,* but we may say, *Despumate,* the matter that would be fuel for the Small Pox, at proper Orifices, can be more liable to Exceptions; Especially, when it was never yet known, that *One Person has died* under it or by it? Or, why may not the *Succus Variolatus* be used, as well as Mercury?

"III. It is Objected, That you *Presume* upon *Providence* in this Essay for the Prevention of the *Small Pox;* for *you don't know whether you shall ever have the Small Pox, or no.* I answer, But what if it be as likely that I shall have it, as it is that my House will take Fire, when my Neighbors an inch and half off, is in Flames. *Pray, sit still, my Neighbour, your House is not yet on Fire; The Almighty can preserve* it. But I *Enquire,* whether this Objection will not lie against all the *Preventive Physick* in the World? I don't Infallibly know, that I shall ever *suffer* the Disease I am going to *prevent.*

"IV. The Objection here is, I *make myself sick, when I am Well.* But I again say, Will any Man decry all *Preventing Physic,* as Unlawful? Why do our Physicians encourage People every Spring and Fall to take it? Don't People take the *Poison* of a *Vomit* into their very Stomachs, to *prevent* a sickness a thousand times less to be feared, than the *Small Pox?* Why may I not as well take a *Poison* into my *Arm,* or my *Leg* to prevent such a Malady. Many have Died of a *Vomit.* It is not yet known, that any *one ever Died* of the Operation, that is now so cavil'd at. To say that our Saviour's words, *The whole need not a Physician,* is a gross abuse of them. Besides, I am not whole while I have the Fuel of the Small Pox lodging in me.

"V. Merely to prevent a little *Headache,* or some such slight Malady, may I not apply such a Poison as an *Epispastic* of *Spanish Flies* to my Arm; A *Poison* which will set the Humours of my Body all a working, and penetrate unto the very *Bladder,* and produce even a Bloody Urine there?

"VI. But a *Anxious Fear* of the *Small Pox;* is not this an *Evil Disease?* Especially when I have it so near me, that 'tis next to a Miracle if I escape it? If I take *Physic* only to *Remove* and *Prevent* this *Fear,* it can't be said, that *I make myself Sick before I have any Disease.*

"VII. The Celebrated *Syndenham* advises, That *Purges* be used, before the Infection of the *Small Pox* be taken, which hopefully prepare the Body, to feel *fewer* of the *Small Pox,* and of the *better sort;* Will any be so Ridiculous as to count this Unlawful, under a frivilous pretense, that they *don't know* whether they shall have *Small Pox* or no.

"VIII. I humbly Enquire, whether the *Sixth Commandment* has not

required us to use Means that may be Lawfully used for the *Preservation of our Own Lives & others?* And what is there *Unlawful* in what is now proposed?

"IX. There is a silly Cavil; *we pray that the Small Pox may not spread: and yet we do ourselves by Transplantation spread it.* But I *Enquire* whether People know what they Pray for? Our *Prayers* are that a *Dangerous* and *Destructive Small Pox* may not Spread. We do not Pray, that the use of an *Effectual* means to save our Lives from the Dangers of *Destruction* by the Small Pox may not be Revealed, Practiced & Prospered.

"X. It is Cavilled (for to say, Objected, would be too easy a word for such Impertinence) that this *New Way* comes to us from the *Heathen,* and we *Christians* must not *Learn the Way of the Heathen.* I Enquire, whether our *Hippocrates* were not a *Heathen?* And whether our *Galen* were not a *Heathen?* And whether we have not our *Mithradate* from the *Heathen?* And whether the first Inventee of our *Treacle* were not *Nero's* Physician? And whether we have not learned some of our very Good Medicine from our *Indians?* But this *New Way* has been used by many Thousands of *Christians;* And it is from *Christians* we have the Communications of this New Way which we most rely upon. But are there none who pass for *Courant Christians* that are *worse than Infidels?* And, Gentlemen Smoakers, I pray, whom did you learn to Smoke of?

"XI. If it should be so, that a *Despumation* of the Blood made by applying the *Succus Variolatus,* would (by the Blessing of God) *generally save the Lives* of them that come under it, I enquire, *What they will have to Answer for,* that by their Meanaces and Outrages put a stop to such a *General* benefit? And I enquire whether a Physician, who makes the *Experiment upon Himself,* that the many Thousands of precious Lives may (if it succeed well) be brought into a likely way of being preserved, & prolonged, shall deserve to be treated as a *Murderer;* or not rather esteemed a *General Benefactor?*

"XII. Were not the Physicians a Great Body of them, up in Arms, against the use of the Cold Bath? But since it has cured a vast Variety of Diseases, and saved Thousands of Lives has not the use of it now obtained, *whether they will or no?* And now *they* also recommend it.

"When the use of the Jesuits Bark was first introduced was there not as loud a Cry against it, as can be imagined? Yea, Do not many to this Day ruine themselves by the use of it; with an indiscreet and preposterous management? But since Hundreds of Thousands of Lives have been saved by it, are they generally counted very *odd Physicians,* who do not use it, as often as they have occasion!

"I Enquire, whether any sort of Practice in the whole Art of Physic

ever came to us with a stronger Recommendation than this of Inoculation or Transplantation.

"Finis."

Five years later, in 1726, Boylston wrote a paper entitled "An Historical Account of the Small-Pox Inoculation in New England upon all sorts of Persons, Whites, Blacks, and of all Ages and Conditions, with some account of the nature of the Infection in the Natural and Inoculated way, and the different effects on Human Bodies." He read this paper in London before the Royal Society, and later it was "Dedicated to her Royal Highness the Princess of Wales." A second edition appeared in 1730.

Though Small-Pox literature continued to flourish for years, nothing of real scientific or historical value remains from such publications other than that given in the preceding pages.

Harvard Alumni took a hand in writing on quarantine matters. There was an epidemic in Boston in the years 1735-36, and the exact nature of the affliction has been much debated. Here is a communication published in "The Boston Weekly News Letter" for April 29, 1736:*

"The *Select Men of the Town of Boston,* in order to inform the Trading Part of our neighbouring *Colonies,* concerning the State of the present *prevailing Distemper* in this Place, did desire a Meeting of as many of the *Practitioners in Physic* as could then be conveniently obtained. The Practitioners being accordingly met, did unanimously agree to the following *Articles:*

"1. That upon the first appearance of this *Illness* in *Boston* the *Select Men* did advise with the *Practitioners;* but they at that Time having not had Opportunities of observing the Progress of the *Distemper,* it was thought advisible (until further Experience) to shut up that *Person*

* Green's Centennial Address, p. 70.

who was supposed to have received it in *Exeter* to the Eastward; upon his Death the Watch was soon removed, but no Infection was observed to spread or catch in that Quarter of the Town; therefore no Watches were appointed in the other Parts of the Town where it afterwards appeared, the Practitioners judging it to proceed from some *occult Quality in the air*, and not from any observable *Infection communicated by Persons or Goods.*

"2. The *Practitioners* and Their Families have not been *seized* with this Distemper in a more *remarkable* manner (and as it has happened not so much) than other Families in Town, even than those Families who live in solitary Parts thereof.

"3. As to the *Mortality* or Malignity of this Distemper, all whom it may concern are referred to the *Boston* Weekly Journal of *Burials:* by the Burials it is notorius, that scarce any Distemper, even the most favourable which has at any Time prevail'd so generally, has produc'd fewer Deaths.

"4. As formerly, so now again after many Months Observation, we conclude, That the present prevailing Distemper appears to us to *proceed from some Affection of the Air, and not from any personal Infection receiv'd from the Sick or Goods in their neighbourhood.*

"NATHANIEL WILLIAMS,
"WILLIAM DOUGLASS,
"JOHN CUTTER,
"HUGH KENNEDY,
"WILLIAM DAVIS,
"THOMAS BULFINCH."

Of the signers, Williams was graduated from Harvard A. B. in 1693, and John Cutter was graduated in 1732. His father was the preceptor of Boylston. Thomas Bulfinch sent a son to Harvard (A. B., 1746) and into medicine (1757, Edinburgh)—a son who was a credit to both Universities.

As the century wore on, the literary productions of American physicians became more numerous, especially in Philadelphia, Charleston, New York, and Virginia. Cadwalader, Bard, Chalmers, Lining, Garden, and Mitchell were a group of men who wrote well and scholarly. Cadwalader did his share by establishing classes in practical dissections and anatomical demonstrations; an innovation in Philadelphia greatly

appreciated. His treatise entitled "An Essay on the Iliac Passion" was one of the classics of the age before the term "appendicitis" was applied to that common complaint. Mitchell, a remarkable type of country practitioner, left "An Essay on the Causes of the Different Colors of People in Different Climates." This was published in the "Philosophical Transactions" for the year 1743. Another work of his, posthumous, was entitled "An Account of the Yellow Fever which prevailed in Virginia in the Years 1737-'41-'42," and became famous in the next generation. It was published in the "Medical and Philosophical Register"* with this editorial foot note: "A series of highly interesting papers on the Yellow Fever, which many years ago prevailed in Virginia, embracing the account written in 1744, by the late Dr. Mitchell of that state, with a reply of Dr. Colden to Dr. Mitchell and a subsequent letter of Dr. Mitchell on the same subject, was placed in the hands of Dr. Hosack (editor) by the late Professor Rush of Philadelphia, a short time previous to his death. On the character of Dr. Mitchell it is unnecessary particularly to remark. He was a distinguished Fellow of the Royal Society of London, and eminent as a physician and philosopher. With Chalmers and Lining, of South Carolina, and Alexander and Colden, of New York, he has done much for the advancement of medicine on this side of the Atlantic."† Mitchell's "Principles of Botany" was published in 1769.

By the middle of the century, yellow fever held the place in medical literature which small-pox had occupied earlier.

* (New York), vol. lv, p. 181 (1814).

† Mumford, "Narrative of Medicine in America," p. 77.

One of the best accounts of that disease is the one given by Lining, of Charleston, in his interesting "Description of American Yellow Fever." This pioneer American physiologist preached and wrote in support of the theory of immunity from yellow fever after the first attack. He published also a series of tables giving the daily variations, covering the period of one year, in metabolism, as observed by him in his own person.

The writings of Chalmers, also of Charleston, are among the best of those times. His "Account of the Weather and Diseases of South Carolina," published in 1776, is his most conspicuous production. In 1754 he had an article on "Opisthotonos and Tetanus" in the "Medical Observations and Inquiries of London," and in 1768 he published "An Essay on Fevers."

Another of the interesting group of Scotchmen who came to Charleston about the middle of the eighteenth century was Alexander Garden. Educated to a degree beyond most of his contemporaries, he was an important factor in the elevation of medical education in this country. Like Boylston, Mitchell and Morgan, he was made a Fellow of the Royal Society of London (1772). His principal contributions to the literature of this country were upon botanical subjects. He added to our pharmacopoeia, spigelia, or pinkroot, and gardenia. After the Revolution, on account of his Tory sympathies, he left us, in 1783, and returned to Europe, there to receive added honors as councillor and vice-president of the Royal Society. He also became a member of the Royal Society of Upsala. He died 1792.

The last to be mentioned of those writers prior to the

Revolution is Samual Bard, of New York. Bard combined the enthusiasm of youth with the wisdom and foresight of age. He is best known to the student of medicine for his success in establishing the New York School of Medicine, from which the first Doctor's degree granted on this continent was issued in 1770.*

A consideration of Bard as a founder of schools would be incomplete without the same consideration for his contemporaries in such work—Morgan, Shippen and Rush, and so we should be carried beyond "literature," the subject of this chapter. Bard wrote upon Malignant Pleurisy, Extra Uterine Pregnancy, and "A Discourse on the Duties of a Physician," the last an urgent appeal for the founding of a hospital in New York.

Among the important American medical productions of the eighteenth century was "Plain, Concise, and Practical Remarks on the Treatment of Wounds and Fractures," by John Jones of New York. This was a guide for the army surgeon and served its purpose well at a very opportune time. Jones had studied under Cadwalader, to whom he dedicated his book. He also studied in London, Edinburgh, Leyden, and France. His degree of M. D. was obtained at the University of Rheims. After the Revolution he settled in Philadelphia, where he was one of the founders of the College of Physicians, and physician to the Pennsylvania Hospital. While in New York he had been Professor of Surgery in the

* The Philadelphia school was established in 1765, and granted the degree *Bachelor* of *Medicine* to its graduates in 1768. The regulations then in force there provided for a lapse of three years before the Bachelor of Medicine could receive his Doctor's degree. Hence the first Doctors of Medicine from the Philadelphia School were graduated in 1771.

Medical School of that city. He was Franklin's physician, and his account of that great man's last illness is interesting reading. Jones died in 1791.

The first volume of Transactions issued by a medical society in the United States appeared in 1788. It was published by the Medical Society of New Haven County, and the preface reads thus:

"A number of Physicians in the city and county of New Haven stimulated by the importance of the object, and the laudable example of the faculty in the various nations of Europe, and in some parts of America formed a society in the year 1784 for the purpose of improving themselves in Medical Knowledge." *

The volume contains one cut of a deformed foetus, and twenty-six papers with the following titles:

"Article I. Case of singultus from an adhesion of the Liver to the Diaphragm, proving fatal. Communicated by Dr. Samuel Nesbitt, F. M. S.

"Article II. Case of Puerperal Fever successfully treated. Communicated by Dr. Elnathan Beach, F. M. S.

"Article III. Two cases of difficult Deglutition from extraneous bodies lodged in the Gula. By Dr. Abraham Tomlinson, F. M. S.

"Article IV. Case of a Fractured cranium successfully treated, by John Spalding, Surgeon, F. M. S.

"Article V. Case of a Gangrene of the Scrotum. By Dr. Levertt Hubbard, F. M. S.

"Article VI. Case of Lock'd Jaw successfully treated by electricity. By Dr. Eneas Munson, F. M. S.

"Article VII. Case of an Haematemesis successfully treated. By Dr. Samuel Nesbitt, F. M. S.

"Article VIII. Case of an Enteritic—Communication. By Dr. Ebenezer Beardsly, F. M. S.

"Article IX. Case of a deformed Foetus, with a cut. Communicated by Dr. Leverett Hubbard, F. M. S.

"Article X. Case of the fatal effects of the corrosive sublimate of Mercury. By Dr. Levi Ives, F. M. S.

"Article XI. Case of the fatal effects of drinking cold water when heated. By Dr. Samuel Nesbitt, F. M. S.

"Article XII. Case of an Asthemia from an extraordinary cause. By Dr. Samuel Nesbitt, F. M. S.

* Packard, p. 405.

"Article XIII. Case of an Hydrocephalus Internus. By Dr. Ebenezer Beardsly, F. M. S.

"Article XV. Case of a singular wound in the Eye. By John Spalding, Surgeon, F. M. S.

"Article XVI. Case of a Peripneumony. By Dr. Ebenezer Beardsly, F. M. S.

"Article XVII. Case of an amputation of the leg in consequence of a divided artery. By John Spalding, Surgeon, F. M. S.

"Article XVIII. A letter from Dr. Humphrey Gale, F. M. S., on the bite of a mad dog. Communicated by Dr. Leverett Hubbard, F. M. S.

"Article XIX. Case showing the good effects of the antiphlogistic regimen in the eruptive variolus fever. By Dr. Samuel Nesbitt, F. M. S.

"Article XX. History of a dysentery occasioned by stagnant air. By Dr. Ebenezer Beardsly, F. M. S.

"Article XXI. Case of a division of the tendo Achillis. By Dr. Samuel Nesbitt, F. M. S.

"Article XXII. Case of a wound in the Trachea, Arteria and Aesophagus. By John Spalding, Surgeon, F. M. S.

"Article XXIII. Case of an enlarged Gall-bladder. By Dr. Ebenezer Beardsly, F. M. S.

"Article XXIV. Case of Dysentery Symptoms from worms. By Dr. Samuel Nesbitt, F. M. S.

"Article XXV. Case of a scirrhus in the pylorus of an infant. By Dr. Hezekiah Beardsly, F. M. S.

"Article XXVI. Case of Calculi in the Lungs. By Dr. Eneas Munson, F. M. S.

A work on Obstetrics, which Green thinks the first one printed in this country, was published in Boston in 1786. It was profusely illustrated with engravings, and was entitled "An Abridgement of the Practice of Midwifery, and a set of Anatomical Tables with explanations. Collected from the works of the Celebrated W. Smellie, M. D. A new Edition, Boston. Printed and sold by J. Norman at his office near the Boston-Stone."

In 1788 the first attempt to formulate an official Pharmacopoeia was inaugurated by a committee from the College of Physicians of Philadelphia (Redman, Jones, Kuhn, Shippen, Rush, Griffitts, Wistar, and Hutchinson). This committee

sent the following letter to one hundred prominent physicians throughout the country:*

"Sir, The physicians of this city, from a desire of extending medical knowledge, and of promoting harmony and uniformity in the practice of physic, have associated themselves under the name of the College of Physicians of Philadelphia.

"With a view to render their institution more extensively useful, they have resolved to address the most respectable medical characters in the United States, intimating their designs, and requesting such information as may be most conducive to carry them into effect.

"One of the Objects of this College has been that of forming a Pharmacopoeia adopted to the present state of medicine in America; for which purpose a committee of their members has been some time since appointed, who have made some progress in their work. When we consider the great number of publications of this kind which Europe has been, and is annually, producing, we think no doubt can arise of the absolute necessity of some standard amongst ourselves to prevent that uncertainty and irregularity which in our present situation must infallibly attend on the composition of the Apothecary and the prescription of the Physician. And as we wish this work may be accommodated to the practice of medicine throughout the United States, and that every useful addition may be made to former publications, we request that you will favour us with your sentiments of the subject, and particularly inform us what Native American Remedies have been discovered amongst you. It will be necessary to give the botanical and vernacular names of such substances, and to ascertain their virtue with the most scrupulous Precision. As we are desirous of publishing a volume of *Transactions* as often as materials are afforded, we shall be much obliged to you for whatever Communications you may favor us with on medical subjects.

"Although we particularly address those physicians who are best known to us, yet as there must be many others, men of learning and rank in the Profession, the knowledge of whom has not yet reached this place from the want of that intercourse which would be so desirable and useful to the Advancement of Medical Science, we wish that you would communicate to them our intentions and that they would excuse this unavoidable omission, and furnish us with their assistance as though they were severally addressed.

"Letters and communications are to be addressed to the President or Secretary of the College.

"Signed by order of the College. "JOHN REDMAN, President.

"SAMUEL POWEL GRIFFITTS, Secretary.

"Philadelphia."

* Packard, p. 415.

This letter has an interest from the fact that it was the means of bringing Alumni of the Harvard Medical School into a certain national prominence in affairs medical. In 1808 James Thacher (M. D., 1810, Hon.) and John Collins Warren (M. D., Hon., 1819) published, under the auspices of the Massachusetts Medical Society, the *first* official Pharmacopoeia issued in the United States. Of this Packard says: "It was received with much cordiality, and met with the heartiest commendation of the College of Physicians of Philadelphia, although it might have been expected to arouse some feeling of disappointment at the forestalling of their own project." And so we come down to the nineteenth century.

From what has here been written, one may perhaps gather some appreciation of the part American physicians were taking in advancing our standards of education.

Progress there was, slow at times, but progress always. At no period was there retrogression. To that group of foreign born men, with the learning and inclination of scientists, who came to this country and practiced here, much of the credit is due. American physicians and American surgeons had to be developed in a severe, practical school—in Colonial Wars and the Revolution.

During the years 1788 to 1810, inclusive, there were graduated in medicine from Harvard College fifty-one men. It is interesting to note that forty-one of these had been graduated previously in Arts. That there had been a steady rise in the educational status of the people is certain. Benjamin Rush, in a lecture delivered in 1799, has this to say of the existing conditions: "From a strict attention to the state of mind in this country before the year 1774 and at the present time, I

am satisfied the ratio of intellect is as twenty are to one, and of knowledge as a hundred are to one, in these States, compared with what they were before the American Revolution."

The graduates in medicine from Harvard began at an early date to spread the teachings of our school to other States, and from that activity resulted the founding of other medical schools which ever since have reflected credit upon the pioneers. A consideration of these achievements belongs properly to a later period of our history, and will therefore be left until we come to deal with nineteenth century conditions.

FAMILY DOCTORS
OF THE
EIGHTEENTH CENTURY.

CHAPTER VI.

FAMILY DOCTORS OF THE EIGHTEENTH CENTURY.

During that eighteenth century, in which wars and great political problems loom large, written history is concerned especially with major questions, so that contemporary biography has much of the cosmic and little of the personal quality. And men must be regarded merely as links in a connecting chain. As time goes on, there appear two results to us: The few conspicuous ones in the great picture are viewed microscopically, with an increasing emphasis on their virtues or defects, according to the bias of the observer; while many who appeared but dimly in the first imprint are now entirely lost to view, or are soon to be forgotten. Merit is no savior, prejudice does not accelerate. They follow a general law—a law which recognizes no difference between life—the man—and inanimate things. So it appears that in the great scenic painting of the eighteenth century there are many dim figures in the background of our tale; figures whose recognition today is almost impossible. Those unostentatious workers—the family physicians—often compelled to minister to the sick soul as well to the diseased body, filled a position which no statesman, warrior or scholar could attain. Harvard's gift to the world was very generous of such Samaritans. When one tries to gather together data sufficient to write just biographies of this class of men, two dilemmas present themselves: one has to accept the character depicted in the newspaper account

of the deceased, or, what amounts to the same, the funeral oration delivered by some one who is not expected to say anything but good of the dead; and neither is likely to give an unbiased estimate of character or individuality.

Another dilemma, and a common one, is that no more than the name remains to tell future generations of the struggles, hardships, untiring energy and conquered difficulties of obscure hundreds in the ranks. And do we not read that "for such risks of life men get the Victoria Cross in other fields?" Every village tells of doctors who deserve "Maclaren's" tribute.

Here is the simple story of one of our graduates—not even the author given:

"MEMOIR OF DOCTOR SHATTUCK."*

"The first men of talents who came to this country, were considered as Missionaries, and when they left, the world generally found some faithful biographer, on this or the other side of the Atlantic; but the following generations, natives of the soil, had but few friends, in the old world or new, to look after their fame. They grew up and died, like the pride of our forests, spreading their branches to the sun and winds of heaven, without any to notice their size, or measure their altitude. Now and then a character was noted and preserved from some martial, political, or ecclesiastical situation, as trees were marked and blazed to trace a pathway, or fix a boundary, and not from their particular beauty or value. The day of better things, and more discrimination, is now dawning, and shortly we shall have learned historians, and minute and faithful biographers. Humbler labours must precede those of taste and elegance, as rude outlines are put upon the canvas, and often corrected before the artist can rise to delicate and perfect finishings.

"The subject of this memoir, Dr. Benjamin Shattuck, was born at Littleton, in the County of Middlesex, on the eleventh day of November,

* Benjamin Shattuck (grad. 1765) was the father of George Cheyne Shattuck, (Hon. 1807), grandfather of George Cheyne Shattuck (1831; Prof. Clin. Med.; Hersey Prof. Theor. and Pract. Med. 1859-1874; Dean Med. School), great-grandfather of George Brune Shattuck (1863; Overseer), and Frederick Cheever Shattuck (1868; Jackson Prof. Clin. Med.).

1742. He was the son of Stephen Shattuck, a man of no ordinary powers of body and mind; a warm patriot, who, after he was turned of sixty years of age, shouldered his gun, and marched to Concord on the 19th of April, 1775, to share in the danger of that eventful day. The father of Stephen was the Rev. Benjamin Shattuck, the first settled minister of the town of Littleton. He graduated at Harvard College, with the class of 1709, and was held in high estimation as a good sound divine of the old New-England School. He married a granddaughter of the celebrated John Sherman, who, on coming from England, was for some time an assistant to Geo. Phillips, the first minister at Watertown. From Massachusetts he went to Connecticut and there acted in the capacity of a magistrate, but when Mr. Phillips died, the flock at Watertown earnestly requested him *to return to his first love*, and he did. Sherman was not only a divine of the first "*gifts and graces*," but also a profound metaphysician, and superior to all others in the country as a mathematician. He published an almanac for several years in succession; the first work of the kind in New-England, and often went to Cambridge to deliver lectures upon philosophical subjects. He was not only in advance of the tmies in which he lived in the sciences, but his literary acquirements were equal to his other attainments. He calculated eclipses, fixed the latitude and longitude of places, drew up codes of laws, all with equal facility, and at the same time preached to admiration. His name may be mentioned as a proof that a family does not much retard the progress of the learned, for he had six children by one wife, and twenty by another, and they were among the best educated of the land, and their descendants have, in a great measure, inherited their taste and talents. Roger Sherman, a Judge of the highest courts in Connecticut, and one of the signers of the Declaration of Independence, was a great-grandson of the Minister at Watertown. The clergy, who are always respected in an enlightened community, were, in the early days of our history, the great men in everything, and to them we are much indebted for the institutions of piety and learning which abound in our country. They gave their children a good education, and considered it the best patrimony they could bestow. It was so. This fixed the permanent principles of a free government, which is for ages to hold its empire over a mighty people.

"Dr. Shattuck was prepared to enter College in his native place, by Drummer Rogers, son of the clergyman then at Littleton. While at Cambridge Shattuck was considered a young man of a good capacity; a hard student, with an original cast of thought, which sometimes, to common observers, appeared like eccentricity.

"It was then a period remarkable for boldness of thinking, and freedom in the expression of liberal opinions on great national questions. The spirit of liberty has always been first invoked in the groves of learning. The sacred flame which was soon to burn through the land and warm

every breast, was frequently seen at that time, to flash and enlighten in the halls of Harvard. Among those whose observations are remembered, by those few who were students at that time and are still living, Dr. Shattuck holds a distinguished rank. In questions of philosophy as well as of government he was one of the pioneers in liberal discussion.

"On leaving College he went to reside at Groton to pursue the study of surgery and medicine with Doctor Prescott, an eminent physician, a man of great urbanity, and popular, not only in his profession, but as a Judge of Probate for the County of Middlesex. From Groton he went to Templeton in the County of Worcester to commence practice.

"The practitioner of the present day, with all the lights of the last half century about him, can hardly understand how much his predecessors suffered for want of books, instruments, and all the facilities which are at the command of the modern physician and surgeon; but sagacity, careful watchings, perseverence, and tact, often, more than supplied the place of books and systems among the physicians of an early age. Nature is generally communicative and kind to those devoted to her laws and suggestions, and not unfrequently her simple inspirations are more efficacious than abstruse theories, however ingenious. Disease has often yielded to the anxious watcher and careful nurse, when science, proud that he knew so much perhaps, might have prescribed in vain. The place Dr. Shattuck chose for the field of his exertions was a new settlement, with but few inhabitants, at that time. The population increased but slowly in the new corporations until after the peace of 1763. Then Indian warfare was no longer to be dreaded, and the hardy sons of the colonies, made rapid strides in cultivating the soil, the children of the forest had given up all claim to, and had even abandoned in their peaceful wanderings. Dr. Shattuck thought, and his visions were more than realized, that by the time his children had grown up, there would be a comparatively dense population around him. With these hopes, his professional duties began.

"The life of a physician who has business, and with it entertains a high sense of his responsibility, is always an arduous one, but few can imagine the severity of his labours, who maintains a considerable celebrity in a new and thinly settled country. The mountain, the vales, the forests, and the midnight air, with the morning's mists, and noon-day's blaze, bear witness to the hardships of such a man in the cause of duty and philanthropy. A fractured limb is to be set fifty miles from a patient struggling with a fever; and both must be attended to as promptly as possible; and after all this, arriving at his own door, he finds impatient messengers waiting to take him on another course before he has had a moment for refreshment or repose. His wife and infants too implore him to spare one little hour by the fireside, but this is not to be granted to his own exhausted spirits, or to their anxious solicitude. The greetings

of return and the adieus of departure are commingled. Such a man gives up the blandishments of life to duty and often sacrifices himself in the strict adherence to the stern rules he has laid down for himself. But after all it is not so great an evil, perhaps, as it first appears to be. These very privations and sufferings, this firmness of purpose, and hardihood in action, entered into the very elements of the character of their descendants and formed them for virtuous enterprise, and praiseworthy endeavors. Thus educated were those who conceived, and those who achieved the independence of our country.

"For twenty-four years Dr. Shattuck continued his labours in the County of Worcester and the neighboring Counties until his strength sunk under his efforts. It is seldom that any constitution is proof against such severe duties, continued for any length of time. He died of a pulmonary complaint in the year 1794. His mind continued bright and active until the last moments of his life. He reasoned and judged upon his own case, with the calmness of one not interested in the event, and named to his medical friends with prescient accuracy the number of hours the mortal machine would by the common course of nature continue its functions. Dr. Shattuck died at that time of life, when the faculties of men reach their highest point, when opinions have been tested by experiment and original thoughts are ranged and incorporated with settled axioms. Those who lived with him, and were the best judges of his talents and acquirements uniformly agree that no physician of that time was more acute in discovering the seat and causes of a disease than Dr. Shattuck. To quick discernment was added a patience of investigation of all the circumstances relating to the subject under consideration, which naturally led to correct views, and happy results.

"His knowledge was considerable, but his wisdom was superior to his knowledge. He knew much of the thoughts of other men, but was governed by a system formed from his own. He hailed with delight the works of Cullen and other distinguished lights in his profession, but received their opinions as intellectual food, for digestion, rather than absolute guides of his own practice. He was systematic in his course of examining, reasoning, judging and acting, but was not, like many wedded to systems, their slave, but took theories and systems on condition of the right of supervision when the dictates of his understanding should decide on the necessity of such a course. With his reputation it is not singular that he was often consulted by his professional brethren in stubborn cases, and his judgment considered by them as the 'ultima ratio medici' for their patients. There were several physicians about him highly respected in their day and generation, who were on most friendly terms with him, and years after he was gone, bore testimony to the soundness of his judgment and the success of his practice. Drs. Foxcroft, Atherton and Frink were among the number; all men of distinction in their profession.

"His death was deeply lamented by the whole community to which he was known; but this loss was more poignantly felt by his townsmen the people of Templeton. He had settled with them by invitation; had lived in their affections and confidence for nearly a quarter of a century; had identified himself with their joys and sorrows; had been connected in bonds of love with the rising generation from their cradles; had quieted the alarms of the mother, and strengthened the resolution of the father, in the darkest hour of the revolutionary conflict, and pointed out to them the future blessings the country would enjoy when the powerful struggle should be over. He did not stop with professional and patriotic services, but walked hand in hand with them in the paths of religion, teaching them, by his example, that the pride of talents, the *acquirements of learning*, and acquisitions of science, and the distinctions among men, were nothing in the sight of that God who searches the hearts of men.

"At his funeral all classes crowded around his bier to pay the last sad and mournful tribute of respect to their physician and friend. The pious pastor of the flock poured out his heart in an honest eulogy, in commemoration of his virtues, and spoke of the 'sense, skill, and philanthropy,' of their departed physician and friend. This was said in presence of those who knew the deceased, and knew too, that his words flowed in truth and sincerity. Such praises, from the mouth of discriminating affection, have a lasting unction in them, and are sweet in the remembrance of ages, when the cold stone, or the proud entablature is defaced or forgotten.

"Soon after Dr. Shattuck settled in Templeton, he married Lucy Barron, the daughter of a brave Provincial Officer, who fell in Johnson's fight, as the memorable battle of the eighth of September, 1755, was called. She was a woman precisely fitted for her situation, endowed with hereditary and constitutional firmness. She was an honour to her husband, and a blessing to her children, through her life, which was, happily for the latter, protracted until within a few years past. She was left with six children at the decease of her husband, two of whom soon followed him. It is often consoling, in the midst of our tears for the loss of the father of a family, to reflect on the numerous instances within our circle of acquaintance, of sons and daughters reared to virtue, to honour and usefulness, by an intelligent, prudent and anxious mother.

"In drawing this sketch, faint as it is, of the character of one who lived in the age of the Revolution, and in the days which preceded it, we are led again to the reflection, and it lingers in our thoughts, that the next generation will hardly understand the simplicity of the past. In the inland towns the professional man was only *primus inter pares*, in his neighborhood. Talents and virtues were respected, but familiarity was mingled with respect. There was a free intercourse of thought, without the loss of good manners, and equality of rights did not mean an abroga-

tion of distinction of place; but if offices and intellect made some difference of rank, there was none of feeling. Their mutual necessities bound them together. In war and religion they were a common family; their voices united in the same praises to God, and their blood flowed in a common current in defence of their country. The battles on the frontiers were prodigal of life. Every family had its mournful story of murdered kindred in these border fights. Their maxims of bravery were drawn from the deeds of their fathers and the chivalrous spirit everywhere exemplified, and glorified in scripture history.

"In such a state of society the professional man, after the discharge of his duties, and, in fact, in the midst of them, was necessarily a teacher of politics, morals and patriotism, from the commencement to the close of his labours. The moral influence of such men was immense, and results have proved that it was wisely directed. All political changes or revolutions which have been successful, have been undertaken by the substantial and intelligent portions of the community. Barons, bishops and clergy won the *magna charta* from a tyrannical king; and divines, physicians and lawyers planned and effected the independence of America. The recruiting rendezvous, the battle-field, the halls of legislation, and even the sacred fanes of worship, were witnesses of the zeal of professional men in the great cause of freedom. These men are gone, and but few of them have been properly noticed in the annals of our country. The literati of the present day must be active in rescuing their names from oblivion. New forms of society, and successive generations of men, produce changes resembling those made in the streets of a flourishing city, by enterprise and activity. The good, old-fashioned comfortable dwellings, with all their privileges and appurtenances, are giving place to modern structures confined in their curtilages in proportion as they rise in height. It would be wise and salutary, before every trace of the moral or municipal view has faded from our memories, to survey and sketch them both for the satisfaction and instruction of those who are to come after us—that in future times the good people may know not only that Warren bled, that Rush signed the Declaration of Independence, but where they lived and with whom they acted. The records will not be found so very scanty, if the search is thorough, and zeal is kept alive by perseverance."

To carry out in some measure the purpose expressed at the close of the foregoing memoir, has been my object in collecting the following meagre notes upon some of the men who were graduated at Harvard during the eighteenth century, and practiced medicine. My information has been taken from

all sources obtainable. Little as it is, it may help the future student of medical history. The list here given has been verified by the College Records, a course frequently neglected in the biographical sketches of physicians, and in the histories of towns and counties. Too often the statement is found that Dr.———— was graduated from Harvard, when the only ground for such an assertion exists in the desire of the biographer to give his hero a happy setting. No doubt some worthy men have escaped me, but here are over three hundred Harvard graduates of the eighteenth century practicing medicine, who must have served the cause of learning, piety and morality to the enlightenment of future generations.

Thomas Graves was graduated in 1703, when he was nineteen years old. He was judge of the superior court of common pleas for Massachusetts. He resided at Charlestown, and represented his town in the legislature. His death occurred on June 17th, 1747.

Another member of the class of 1703 who practiced medicine was Elijah Danforth. He was one of the earliest physicians in Dorchester, Massachusetts, where he worked for many years. For a time he practiced at Castle Island and at Roxbury, Massachusetts. Boylston, in his " Account of the Smallpox inoculated in New England," says that Danforth was one of those inoculated at Roxbury, and gives his age as thirty-five years. He died of an axillary abscess in 1736, at the age of fifty years, leaving real estate valued at £2,000, besides a handsome personal estate.

John Russell was graduated in 1704 in a class in which there were but three others. He practiced at Barnstable, where he died August 25th, 1759.

Thomas Robie, who was graduated in 1708, was a Fellow, Tutor and Librarian of Harvard, and studied medicine about 1723, settling at Salem, Massachusetts. During his connection with the College (1708-1723) he was noted as a mathematician and for his handsome writing. His contributions to the newspapers, then the only channel for scientific publication, attracted attention. Perhaps his most noted public communication was that relating to a remarkable eclipse of the sun, November 27th, 1722. He also published a theological discourse which he had delivered in the College Chapel to the students, and dedicated to President Leverett. He died July 28th, 1729, aged forty-two years.

Thomas Berry was fourth in a class of seventeen graduated in 1712. He served as councillor of Massachusetts, was judge of probate for Essex county, justice of the court of common pleas, and colonel of the regiment. The title justice of the peace was then held in regard, as is seen later (1781) at the time of the formation of the Massachusetts Medical Society when the suffix "Esquire" is used after Holyoke's name rather than his title, Doctor. The former "carried a great deal of dignity with it," says Green. Berry settled at Ipswich, Massachusetts, and was the most distinguished practitioner in his neighborhood. He was better known by the title of "Colonel" than that of Doctor. He was the preceptor of Holyoke. His death occurred August 10th, 1756.

Another physician to be styled "Esquire" was Ebenezer Robie, who was born in Boston in 1701, and was graduated at Harvard in 1719, after which he pursued in Europe the study of medicine under Boerhaave. Robie practiced medicine at

Sudbury, and was prominent in the affairs of that town. He died in 1772, aged seventy-one.

Edmund Toppan, of the class of 1720, also practiced medicine; but little more than the date of his death, 1739, can be obtained.

The class of 1721 furnished four graduates who subsequently practiced medicine. Shepard Fisk, upon whom the degree A. M. was conferred out of course (1725), settled at Kingsley, Connecticut, and later at Bridgewater, Massachusetts, where he died in 1779.

Robert Hale practiced medicine at Beverly, Massachusetts. He was representative from that town to the General Court and later was sheriff for Essex county. He died March 20th, 1767.

Nathan Bucknam was the first physician to settle at Stoughton, Massachusetts, where he practiced until his death in 1795.

Joseph Richards settled at Dedham, where he became colonel of the militia, and representative to the General Court. He died in 1761.

The class of 1722 contained men who became eminent in their day. The first name of that class in the catalogue is that of William Brattle. The name Brattle is one closely identified with Harvard College in the early part of the eighteenth century through the munificence and scholarship of the two brothers, Thomas and William Brattle. Thomas Brattle was treasurer from 1693 to 1713, and his brother William was treasurer from 1713 to 1715. The subject of this notice is mentioned as preacher, lawyer, physician. He was representative from the town of Cambridge, as well as councillor

of Massachusetts; later he served as major-general of militia. He died at Halifax in 1776.

Josiah Convers was graduated in 1723, and practiced medicine at Watertown, where he died in 1774, aged seventy-three years.

The class of 1724 furnished six practitioners of medicine. Dudley Woodbridge lived in Lexington, Connecticut, and practiced there until his death in 1790, aged eighty-six.

Joseph Baxter settled at Medfield, Massachusetts, where he died of small-pox in 1732.

Zabdiel Boylston, son of the inoculator of the same name, continued his medical studies in Europe after studying with his father. He practiced in Boston for a few years prior to his departure for Europe. He is supposed to have died in Europe.

John Cabot practiced at Salem, Massachusetts, until his death in 1749, an event which induced young Holyoke, then starting upon his long career, to settle at Salem.

Stephen Coolidge combined the duties of school-master with those of physician until his death, May 5th, 1758.

Simon Tufts was born at Medford, 1700. He early studied physic, and soon became eminent in that profession, being the first regularly bred physician in Medford, Massachusetts. His practice extended to the neighboring towns, as well as to the students at Harvard College, and on account of his regard for that institution he declined receiving any fee from the young men whom he attended there. Among his medical pupils was General John Thomas, of Revolutionary fame. Tufts was justice of the peace, and held many civil offices in the town and county. He died in 1747.

Joseph Manning, Nathaniel White and James Robinson were graduated in 1725.

Robinson was born at Dorchester, Massachusetts, and practiced medicine in Newport, Rhode Island, where he died in 1745.

Manning settled at Ipswich, Massachusetts, his native town, where he practiced until his death in 1784, when he was eighty years old.

White was born at Weymouth, Massachusetts, in 1690, and practiced medicine there. He became widely known for his professional skill and his activity in the public affairs of the town. He died in 1758.

Six members of the class of 1726 became practicing physicians—William Clark, Joseph Pynchon, Joseph Lord, Stephen Huse, Jonathan Stedman and Jonathan Hayward.

Clark became an eminent practitioner in Boston, and represented that town in the legislature. The "Boston Post and Advertiser," June, 1760, says: "Yesterday departed this life Dr. William Clark, a Physician of Principle Note in this Town. He was a Gentleman of Extensive Learning, of great knowledge in that Profession and Success in its practice. * * * His Death is universally lamented."

Pynchon was a descendant of William Pynchon, one of the planters of Massachusetts, and founder of the two cities of Roxbury and Springfield in that State. Joseph Pynchon was a prominent physician in Boston, where he was magistrate for the county of Suffolk, and for many years a member of the Governor's council. He was College Librarian in 1729 and 1730. He died in 1765.

Lord practiced at Athol, Massachusetts, where he died in 1788.

Huse settled at Haverhill, Massachusetts, where he died at the close of the Revolution, 1783.

Stedman was twenty-three years of age at the time of his graduation. After studying medicine he settled at Chelmsford, Massachusetts, and was one of the earliest physicians of that historic town.

Hayward was both physician and selectman for the town of Woburn, Massachusetts, where he continued to live until his death August 13, 1749.

John Prescott, son of Dr. Jonathan Prescott, was born at Concord, Massachusetts, May 8, 1707. He was graduated from Harvard at the age of twenty years, and studied medicine with his father, after which he began practice at Concord. He soon acquired a reputation for professional skill and excellent character. He was commander of that unfortunate expedition to Cuba during the winter 1740-41. After the failure of this enterprise Prescott returned to Boston, and later went to England at the request of the government. He died of smallpox in London, December 30, 1743.

The class of 1728 has an especial interest for us on account of one of its members, Ezekiel Hersey, an early donor and promotor of our Medical School. Hersey practiced medicine in his native town of Hingham, Massachusetts, where he died December 9, 1770.

Others of this class who practiced medicine were John Fitch and John Rogers—Fitch at Newbury, and Rogers at Boston. Fitch died in 1736.

In the class of 1730 James Penniman, Comfort Carpenter,

Adam Richardson and John Sprague took up the practice of medicine—Penniman at Boston, Richardson at Woburn, Carpenter at Rehoboth, and Sprague at Newburyport, all in the State of Massachusetts.

Carpenter was known as a physician and lawyer, a not unusual combination at that time. He died in 1739.

Sprague died in 1784, aged seventy-four. He is the John Sprague of Newburyport, concerning whom a question arose at an early meeting of the Massachusetts Medical Society, whether he or John Sprague of Dedham was the physician intended in the act of incorporation of that Society. This Sprague of ours wrote to the secretary of the Society in 1782 as follows: "Any mark of respect from so worthy and respectable a society, I esteem an honor. But, Sir, the Society must excuse me, if I think myself entitled to a fellowship by the act of incorporation, as I am included in the list of members which constitute the Society, by the title of Senior. That I am senior, is indisputable, and I shall not be content to be superceded by anyone, though it seems my kinsman and namesake of Dedham has mistaken himself to be the person meant in the act, and attended the meeting of the Society. I have no objection to his being a member, if the Society think proper, but not in my place. I shall with pleasure attend the meetings when my health and business will permit." John Sprague of Dedham immediately resigned and was reëlected a member at the same meeting.

Nathaniel Hubbard went to Norwalk, Connecticut, after his graduation in 1732, and was an active practitioner up to the time of his death in 1772.

Ebenezer Hartshorn, of the same class, was given the

A. M. (1739), and practiced medicine at Concord, Massachusetts, where he died in 1772.

John Wilson, who was graduated in 1733, was born at Braintree, and practiced medicine at that place for many years. He represented his native town in the State legislature during the years 1746-47.

Nathaniel Perkins, of the class of 1734, lived in Boston. He is said to have had a larger practice than any physician of the town at that time. He died in Great Britain in 1799.

Gillam Tailer, whose name stands first in the list of graduates of the class of 1735, and Joseph Lemmon, both practiced medicine,—Lemmon at Marblehead, Massachusetts, where he died in 1772. Tailer's death occurred in 1757.

John Osborn was graduated in 1735. During his college course he showed great talent for mathematics. First he tried divinity, but later studied medicine, and settled at Middletown, Connecticut. He was more celebrated as a scholar and a poet than most of the professional men of his day. His "Whaling Song" is still a favorite among sailors. He died in 1753.

William Russell, of the same class, took up the practice of medicine after graduation, and settled at Strafford, Connecticut.

Edward Archibald, Joseph Brown, and Anthony Emery were graduated in 1736, and became physicians. Emery settled at Hampton, New Hampshire, and later at Chelmsford, Massachusetts, where he died in 1781. Brown practiced in Boston. Archibald died early in 1742.

Joseph Osgood, Elias Parkman and John Sprague were graduated in 1737. Osgood died in 1797, and Parkman in

1751. Sprague became the best known physician of the three. He was a pupil of Dal 'Honde, of inoculation fame, whose daughter he married. At Dedham, Massachusetts, he had a large and lucrative practice which allowed him to retire and spend his last days in leisure. His manner was said to be blunt and amiable. He was a lover of money but indulgent to his debtors. He died in 1797. Sprague was a benefactor of the young medical school and the College granted him the M. D. (Honorary) in 1792.

The class of 1738 graduated three future physicians,—Isaac Otis, Jonathan Davis, and John Druce. Otis practiced medicine at Bridgewater and died in 1785; Davis at Roxbury, died in 1801; Druce at Wrentham, died in 1772.

Ebenezer Putnam, Adam Colson, and Isaac Parker represent the quota of medical practitioners who were graduated in 1739. Parker did not long survive his graduation. He died in 1745. Putnam died in 1788, and Colson in 1755.

John Wilson, who was graduated in 1741, was born October 7th, 1721, at Framingham, Massachusetts. He studied medicine with his father, and later in Edinburgh and London. He settled at Braintree, Massachusetts.

Samuel Breck and William Rand were graduated in 1742, and both practiced medicine. Breck was the son of Dr. Robert Breck, of Marlboro, and settled at Windsor, Connecticut; later he moved to Springfield, Massachusetts, where he died in 1764.

The class of 1743 furnished five physicians—James Pecker, John Crocker, Gad Hitchcock, Elisha Savil, and Elisha Tobey.

Pecker practiced in Boston, was vice-president of the Massachusetts Medical Society, and died in 1794.

Crocker received the A. M. from Yale in 1759, and died in 1815.

Hitchcock received the degree S. T. D. in 1787, practiced medicine at Pembroke, and died in 1803.

Savil was in active practice at Quincy, Milton, and Braintree, Massachusetts;—at the last place from 1750 to 1768, the year of his death.

Tobey first settled at New Bedford, and later at Dartmouth, and is said to have had the most extensive practice in the county. He died in 1781.

John Vanhorne, Ebenezer Winchester, William Kneeland and Simon Tufts belonged to the class of 1744.

Simon Tufts was born at Medford in 1726, the son of Simon Tufts, of the class of 1724, and was deemed an excellent Latin and Greek scholar. He had just completed two years' study under his father when the latter died. He soon acquired the bulk of his father's former practice, and became eminent as a practitioner, and as a teacher of skill and judgment. Among his pupils were John Brooks, later governor of Massachusetts, and the lad famous later as Count Rumford. He served in the legislature, was a justice of the peace, and a member of the Massachusetts Medical Society. He died in 1786.

Besides Holyoke, Samuel Gardner, and Benjamin Dearborn, with the class of 1746, graduated Thomas Bulfinch. Of Holyoke we shall hear later. Gardner practiced at Milton, Massachusetts, where he died in 1778.

Bulfinch was the son of a physician who had a good European medical education, and was in active practice in Boston for many years. The son was fitted for his profession by

his father, after which he studied four years in England and Scotland, and took his M. D. at Edinburgh in 1757. Harvard gave him the M. D. (Honorary) in 1790. In the epidemic of 1763, Bulfinch was associated with Joseph Warren, Gardner, and Perkins in an effort to establish a smallpox hospital at Point Shirley, in Boston Harbor. During the siege of Boston he remained in the town, and had his large supply of medicines confiscated by the British officers for the use of their troops. He published a treatise upon scarlet fever, and one upon yellow fever, when those diseases were little understood. He died in 1802. His son was the celebrated architect whose name is today associated with the architectural beauty of the Massachusetts General Hospital.

Dearborn settled at Portsmouth, New Hampshire, where he died in 1755.

Timothy Minot, the physician of Revolutionary note, had as classmates in 1747, Nathaniel Henchman, and Peaslee Collins, both of whom practiced medicine, Henchman at Lynn, where he died in 1767. Collins died in 1756.

Richard Perkins was graduated in 1748, and was the pioneer physician at Bridgewater, Massachusetts, where he died in 1813.

Joseph Adams, the loyalist, preacher and physician, was a graduate of this class. He was born in Boston in 1728, and practiced at Townshend, Massachusetts. He was banished in 1778.

In the class of 1749 were John Cotton, Cotton Tufts, and Samuel Haven, all of whom practiced medicine, Haven at Kingston, where he became very prominent. He received the

S. T. D. in Edinburgh in 1770, and from Dartmouth in 1773. He died in 1806.

John Cotton settled at Newton, Massachusetts, where he died in 1758.

Cotton Tufts was the successor of White in the practice of medicine at Weymouth. He had studied medicine with his brother Simon Tufts (H. U., 1744). Cotton Tufts was a well educated physician, and had an extensive practice. He was one of the original members of the Massachusetts Medical Society, and its president from 1787 to 1795. He was also a Fellow of the American Academy of Arts and Sciences. Harvard conferred upon him the M. D. (Honorary) in 1785. He was a doctor of the "old school," courteous, dignified, modest. In the later years of his life he was much engrossed with public trusts, and his practice was more or less limited to consultations, especially with young men just beginning the practice of medicine. He died in 1815.

Robert Gibbs and Oliver Prescott were graduated in 1750. Gibbs practiced medicine at Providence, Rhode Island, where he died in 1762. Prescott was graduated with high honors, and in his medical course under Robie, of Sudbury, received the advantages of the latter's European medical education. Upon the incorporation of the Massachusetts Medical Society, Prescott was an active member. Besides his services as surgeon during the American Revolution, he filled many civil and military positions. He was town clerk of Groton for thirteen years, and selectman thirty-two years. He was also a justice of the commonwealth. He died November 17th, 1804, aged seventy-three years.

From the class of 1751, John Russell, Giles Crouch Kellogg,

William Kneeland and Thomas Langrell took up medicine. Russell practiced at Barnstable, Massachusetts, where he died in 1765; and Kellogg at Hadley, Massachusetts, where he died in 1793. Langrell practiced at Hartford, Connecticut, and was drowned in 1757, while attempting to save the life of a companion.

Kneeland was born in Boston in 1732. After his graduation from Harvard he took up the study of medicine with an eminent physician, and while pursuing his studies cultivated various branches of science, and was noted as a scholar in logic and metaphysics. He was a Tutor at Harvard College from the year 1754 to 1763, after which he began the practice of medicine in Cambridge. He was elected a member of the Massachusetts Medical Society in 1782, when he is designated Esquire. He was president of the Society from 1784 to 1786. He was also register of probate. He died in 1788. "Sagacious in many things, he gave counsel to many who consulted him, and performed punctually and faithfully his private and public duties. He was a sincere friend and pleasant companion, an honorable man, and a guardian of the poor."

Besides Ammi Ruhamah Cutter and Joshua Brackett, both of whom have been treated in detail under "Eminent Alumni," William Foster and Samuel Wigglesworth, of the class of 1752, practiced medicine. So also did James Quincy and John Lowell, of 1753.

Bela Lincoln, of the class of 1754, received his M. D. at Aberdeen in 1765. He died in 1773.

Nathan Webb and Samuel Marshall, 1754, both practiced medicine. Webb died in 1760, and Marshall in 1771.

Benjamin Church, first Medical Director of the Continental Army, whose questionable course in the affairs of that period has been mentioned before, was also a member of this class.

The class of 1755 produced but one graduate who is known to have practiced medicine,—Joseph Stockbridge, who was born at Scituate in 1734, and died in 1761.

The class of 1756, however, contained five who studied medicine out of a total number of twenty-five. These were: Nathaniel Lothrop, who practiced at Plymouth, Massachusetts, was given the M. D. (Honorary) by Harvard in 1824, and died in 1828.

Micajah Sawyer, who practiced at Newburyport, was a member of the Committee of Safety in pre-Revolutionary times, a Fellow of the American Academy, and a member of many literary and benevolent societies. He received the M. D. (Honorary) from Harvard in 1793. He was one of the incorporators of the Massachusetts Medical Society. His death occurred in 1815.

Ephraim Otis practiced for seven years at Taunton, Massachusetts, and afterwards at Scituate. Yale gave him the A. M. in 1759. He died in 1816.

Thomas Rice went to Wiscasset, Maine, to practice. He died in 1812.

John Hill died in 1771.

Charles Russell was graduated in 1757, received the M. D. from Aberdeen in 1765, and, returning to this country, practiced medicine at Lincoln until April 19th, 1775, when, on account of his opposition to the American cause, he removed to Martinique, where he died in 1780.

Thomas Williams, of the same class, was born at Roxbury,

in 1736. After graduation he studied medicine at Deerfield, under his namesake, Thomas Williams. He settled at Roxbury, where he died in 1815.

Another member of this class who practiced medicine was Thomas Phips, a native of Brighton, who settled at Quincy, Massachusetts, in 1768, where he took up the practice of Dr. Savil, lately dead. Phips was somewhat deaf, so his wife used to go with him on his professional visits to take notes of the cases. He died at the age of eighty-five, in the year 1817.

Samuel Danforth represents the class of 1758 in the medical profession, and was an "eminent alumnus."

Charles Coffin, of the class of 1759, practiced medicine at Newbury, was a member of the Massachusetts Medical Society, and died in 1821, aged eighty years.

The class of 1760 graduated four practitioners of medicine: William Baylies, who has been considered under "Eminent Alumni"; Ephraim Woolson, who was born at Weston, April 11, 1740, and practiced at Groton, where he died in 1802; Ebenezer Rice, who practiced at Barre, where he died in 1822; James Baker, who first studied divinity and later medicine, which he practiced until 1780, when he gave up the profession. He died in 1825.

Besides Isaac Rand and John Flagg, to be considered later, Nathaniel Ames, of the class of 1761, practiced medicine. Ames was born at Dedham about 1740. He was the son of Nathaniel Ames, a physician and mathematician of Dedham, and the publisher of an almanac for thirty-eight years. The son is said to have had certain "eccentricities of character and fondness for political strife" which interfered with his acquiring much practice. He continued the publication of the

Almanac, and was a member of the Massachusetts Medical Society until his death in 1822.

In spite of attempts to promote a new college in Hampshire county about 1762, the classes at Harvard continued to increase in size, and the number of graduates who took up the study of medicine grew accordingly. There were six members of the class of 1762 who entered the medical profession. They were Jonathan Parker, John Swift, Israel Atherton, Jonathan Crane, John Peck and Marshall Spring.

Atherton practiced at Lancaster, and was one of the first members elected to the Massachusetts Medical Society (1782). He died in 1822.

Crane practiced at Bridgewater, was a member of the Massachusetts Medical Society, and died in 1813.

Spring practiced at Watertown, received the M. D. (Honorary) in 1807, was active as a surgeon during the Revolution, and died in 1818.

Swift was in practice at Acton, where he died of smallpox during the epidemic of 1775.

Jonathan White, Archibald Putnam and James Parker were graduated with John Jeffries in 1763. White studied medicine and settled in Vermont. Putnam practiced at Salem, where he died in 1800. Parker was born July 6th, 1739, at Southborough. He studied divinity, but gave it up to practice medicine at Framingham, where he also taught school.

Of the class of 1764, Francis Foxcroft practiced medicine at Brookfield, Massachusetts, was a member of the Massachusetts Medical Society, and died in 1814.

Seth Ames, a brother of Nathaniel Ames (1761), was a surgeon in Colonel Read's regiment of the Revolutionary

army. He practiced medicine at Amherst, New Hampshire, and died in 1778.

Ebenezer Hunt was born at Northampton in 1744, and was one of the incorporators of the Massachusetts Medical Society, from his native town, where he was practicing medicine. He was vice-president of the Medical Society, a member of the American Academy of Arts and Sciences, representative and State senator. Harvard conferred the M. D. (Honorary) upon him in 1811. He died in 1820.

William Aspinwall practiced at Brookline, where he acquired a reputation in the inoculation controversy, as Boylston's successor. He did good service in the army during the Revolution, was a member of the Massachusetts Medical Society, and was honored with the degree M. D. from Harvard in 1808. He died in 1823.

The class of 1765 was the second largest graduated from Harvard during that century. It consisted of fifty-four members, six of whom afterwards studied medicine. These were Joseph Orne, John Stedman, Ebenezer Stedman, Samuel Cutler, Ezra Green and Benjamin Shattuck.

Orne was born at Salem in 1749, studied medicine with Holyoke, settled at Beverly, and later at Salem, where he died in 1786. He was a charter member of the Massachusetts Medical Society, to which he presented several medical communications. He was also a Fellow of the American Academy.

Cutler was born at Brookfield in 1741. After graduation he studied medicine at Rutland, Massachusetts, and began its practice at Edenton, North Carolina. After a year of study

in England he practiced at Hartford, Rockingham, Vermont, and Bellows Falls. He died October 30th, 1821.

Ezra Green was born at Malden, Massachusetts, 1746. He served as surgeon under John Paul Jones in the navy, and subsequently became a merchant at Dover, New Hampshire, where he died in 1847.

Of Benjamin Shattuck I have already written.

Out of a class of forty graduated in 1766, twelve practiced medicine, and several of them became prominent in the profession and in affairs of state.

David Cobb and Charles Jarvis are noted elsewhere.

Nathaniel Saltonstall practiced at Haverhill, where he died in 1815. He was a member of the Massachusetts Medical Society.

Samuel Curtis, Ebenezer Barnard, and John Hill are known to have practiced medicine.

Joseph Dowse was a surgeon in the British army in the West Indies.

Nathaniel Bond was a surgeon in the Revolutionary army, and died in 1777.

Elisha Whitney practiced at Beverly, was a member of the Massachusetts Medical Society, and died in 1807.

Samuel Savage practiced at Barnstable, was a member of the Massachusetts Medical Society, received the M. D. (Honorary) in 1808, and died in 1831.

Peter Green began the practice of medicine at his birthplace, Lancaster, Massachusetts, and in 1772 removed to Concord, New Hampshire, where he practiced until his death on March 1st, 1828.

Joshua Fisher was born at Dedham, Massachusetts, in May,

1749. After studying medicine, he practiced until the outbreak of the war. He embarked as surgeon on board a privateer, and was captured by the British. Escaping to France, he again entered the service with various fortune. After the war he settled at Beverly, Massachusetts; in 1782 was elected a member of the Massachusetts Medical Society, and was its president from 1815 to 1823, having served as vice-president for the previous eleven years. Besides numerous medical contributions to the Society, he delivered the annual discourse in 1806. Harvard conferred upon him the M. D. (Honorary) in 1804. He became very much interested in Natural History, and at his death in March, 1833, at the age of eighty-four years, bequeathed "to the President and Fellows of Harvard College the sum of twenty thousand dollars, the income of it to be appropriated to the support of a Professor of Natural History, comprehending the three kingdoms, animal, vegetable, and mineral, or a part of them." Fisher was an active Fellow of the American Academy.

FAMILY DOCTORS
OF THE
EIGHTEENTH CENTURY
(CONTINUED)

CHAPTER VII.

FAMILY DOCTORS—(CONTINUED).

The graduates of the class of 1767 who followed medicine were Samuel Willard, William Moore, Nathaniel Kidder, William Gamage, and Amos Cotting. Willard practiced at Uxbridge, Massachusetts, and was a member of the Massachusetts Medical Society. He died in 1811. Gamage practiced at Cambridge, was a member of the Massachusetts Medical Society, and died in 1821, aged seventy-six years.

There were ten graduates of the class of 1768 who became medical practitioners.

William Paine received his M. D. at Aberdeen in 1775, and at Harvard in 1818 (Honorary); he practiced medicine at Worcester, Massachusetts, and was a member of the Massachusetts Medical Society, and the American Academy of Arts and Sciences. Concerning Paine's Aberdeen degree of M. D., about which there has been some question, P. J. Anderson, Librarian of the College at Aberdeen, says in a letter to the Librarian at Harvard that the name "John" was changed on the records of Aberdeen to William, because on August 24th, 1781, William Paine produced his diploma as M. D. from Murshell College of the University of Aberdeen, dated November 1st, 1775, to the examining board of the Royal College of Physicians of London, and also because a photograph of that diploma now (1901) in possession of the American Antiquarian Society at Worcester, Massachusetts, was sent to

the University of Aberdeen by George Sturgis Paine, A. B., Harvard, 1853.

Thomas Leonard and Ebenezer Starr practiced medicine; Leonard died in 1771 soon after beginning practice; Starr died in 1798.

John Gove was born in that part of Weston which is now Lincoln, Massachusetts, August 22, 1746. He studied medicine under Oliver Prescott, of Groton, Massachusetts, and after qualifying began practice at New Boston, New Hampshire. He moved later to Goffstown, New Hampshire, where he died March 24, 1818.

Ephraim Wales was the second physician to settle at Randolph, Massachusetts. He was a well educated man, and was the instructor of many pupils in medicine. He died in 1805.

John Wentworth practiced medicine in New Hampshire, and was a delegate from that place to the Continental Congress. He died in 1787.

Gad Hitchcock practiced at Pembroke and was early elected a member of the Massachusetts Medical Society. He died in 1836.

Samuel Nutting settled at Cambridge, and was for many years overseer of the poor-house at that place. He died in 1797.

Lemuel Hayward was born at Braintree in 1749, studied medicine under Joseph Warren, was a surgeon in the Revolutionary army, and was afterwards an eminent physician in Boston, where he died on March 20th, 1821, aged seventy-two years. He was elected a member of the Massachusetts Medical Society in 1784, received the M. D. (Honorary) from

Harvard in 1808, and was for many years corresponding member of the Medical Society of London.

Lawrence Sprague of this class also practiced medicine.

In the class of 1769, Peter Oliver received the M. D. from Aberdeen in 1790. He died in 1795.

Thomas Kast practiced in Boston, was one of the incorporators of the Massachusetts Medical Society, and its treasurer from 1798 to 1807. During the Revolution he served as surgeons' mate in the British Navy. He died in 1820.

William Bowers settled at Billerica, Massachusetts, where he practiced until his death, November 17th, 1820.

William Goodhue and Nathaniel Harrington practiced medicine, Harrington at his native place, Watertown, Massachusetts. He died in Jamaica, West Indies.

Samuel Adams, Joseph Hunt, David Townsend, and Jonathan Hicks, of the class of 1770, became physicians, Adams at Boston, where he joined the Massachusetts Medical Society in 1785. He died in 1788, aged thirty-seven years.

Hunt was born March, 1749. He was a physician at Dracut and Concord, Massachusetts, and joined the Massachusetts Medical Society in 1789; he died in 1812, aged sixty-three years.

David Townsend was prominent during the American Revolution, after which he settled in Boston; in 1785 he was elected a member of the Massachusetts Medical Society, and in 1813 Harvard conferred upon him the M. D. (Honorary). He died in 1829.

Hicks died in 1826.

Few classes stand out more prominently in Harvard's history than the classes of 1771 and 1772. The practice of med-

icine received many scholarly followers from both. Of the class of 1771, John Warren and John Barnard Swett have been considered. Another of this class was Edward Kitchen Turner, who was born at Salem, studied medicine under Holyoke for three years, and practiced for a while at Wells, Maine. Later, while on his way to Europe to continue his studies, he was lost at sea.

Walter Hastings began practice in 1776, and was surgeon in the Continental army until 1782, when he died.

Jacob Bacon practiced at Salem, where he died in 1816.

William Vinal was surgeon on board a privateer, was taken prisoner, and died on a prison ship in New York in 1781.

Samuel Nye practiced at Salisbury, was a member of the Massachusetts Medical Society, and died in 1834, in his eighty-sixth year.

Abraham Watson was a surgeon and captain in the Continental Army. After the war he practiced in New York, where he died in 1804.

Amos Winship was born at Lexington in 1750, received the M. B. in 1790, and the M. D. in 1811; was corresponding member of the London Medical Society, and died 1811.

Benjamin Curtis was born at Roxbury in 1752, studied medicine under Gardner, and settled in Boston, where he had a good practice until his death in 1784. He was a member of the Massachusetts Medical Society.

Jedediah Estabrook practiced at Luenburg, and died in 1782.

The class of 1772 had fourteen future physicians on its roll.

Jesse Rice practiced at Yarmouth, Nova Scotia, and died in 1816.

Clement March practiced at Greenland, New Hampshire, was justice of the peace, and died in 1818.

Samuel Murray was a surgeon in the British Army.

Miles Whitworth, John Sprague, Samuel Tenney, William Eustis, and Thomas Welsh have already been named.

John Clarke studied medicine under Lloyd, and in Europe; he died in 1788.

Joshua Barker practiced at Hingham, Massachusetts, was a member of the Massachusetts Medical Society, and died in 1800.

Samuel Smith practiced at Hampton, New Hampshire, and died in 1827.

Martin Herrick was a physician at Reading, Massachusetts, and died in 1820.

John Homans was born at Dorchester, April 8th, 1753. His preliminary education was received at the Boston Latin School. After graduating from Harvard he studied medicine under Joseph Gardner. At the beginning of the war he was appointed surgeon in the Sixteenth Regiment, and later in the Second Regiment Light Dragoons. He served until 1781, when he began practice in Boston. In 1790 he was elected a member of the Massachusetts Medical Society. He died at sea in 1800.

Nathaniel Walker Appleton, Joshua Plummer, Benjamin Rice, Ebenezer Rockwood, and Robert Williams were members of the first class at Harvard (1773), in which the names of the members are arranged alphabetically, rather than according to the social rank of the families to which they be-

longed. The latter custom had prevailed at the College since its founding, and had been the cause of grevious discontent among the students and their families.

Appleton practiced in Boston. He was an incorporator of the Massachusetts Medical Society, and its first recording secretary (1782-1792). His contributions to the Society were on the "Treatment of paralysis of the lower limbs, occasioned by a curvature of the spine," and an article on "Rupture of the inside of the labium pudendi causing hemorrhage." He was a member of the American Academy of Arts and Sciences. He died in 1795.

Plummer practiced on Cape Ann, and later in Salem, where he died in 1791.

Rice practiced in Boston until his death in 1782.

Rockwood was at Wilton, New Hampshire, where he practiced, and was a justice of the peace for Hillsboro county. He died in 1830. He had served as surgeon at Dorchester Heights in 1776.

Of the class of 1774, Edward Barnard practiced in Salem, where he died in 1822.

Francis Borland practiced in Portsmouth, and died in 1826.

Timothy Dwight, born September 5th, 1750, at Medfield, Massachusetts, was a surgeon during the Revolution, and died at Brooklyn, New York.

Moses Taft practiced at Sudbury, where he died in 1799.

In the class of 1775 there were five men who became physicians. Simon Dunbar practiced at West Bridgewater, and was a member of the Massachusetts Medical Society. He died in 1810.

Jonathan Eames was a college tutor from 1778 to 1780,

after which he studied medicine and practiced at Holliston, Massachusetts.

Daniel Shute served in the Revolution, settled at Hingham, was a member of the Massachusetts Medical Society, and died in 1829.

Isaac Osgood practiced in Salem, and later at Haverhill, where he died in 1799.

Peter Hobart practiced medicine till his death in 1793.

The year 1776 at Harvard was marked by the unsettled financial condition of the College, a state of affairs which was not remedied by a controversy between the overseers and the treasurer, John Hancock. In this year there were graduated forty-three men, ten of whom followed medicine.

Aaron Dexter belonged to the family of Dexters of Dedham, Massachusetts, and has been considered in the chapters on the founding of the school.

Isaac Hurd was born July 27th, 1756. After the study of medicine he began practice at Billerica in 1778. In 1789 he removed to Concord, Massachusetts, where he died in 1844, aged eighty-eight years. He was a member of the Massachusetts Medical Society, and was honored with the M. D. from Harvard in 1819.

Timothy Harrington practiced medicine at Chelmsford, Massachusetts, from 1782 to the time of his death in 1802.

James Mann was a native of Wrentham, and studied medicine under Danforth. He joined the American Army as surgeon, was a member of the Massachusetts Medical Society, and was the author of two essays to which the first Boylston Medical prizes were awarded (1804). These were respectively "Observations on the lymphatic swelling of the inferior ex-

tremities of puerperal women," and "Observations upon menorrhagia and leucorrhoea and the beneficial employment of blisters, acetate of lead and the submuriate of mercury in those diseases." He received the M. D. from Brown in 1815. In 1812 he was appointed hospital surgeon in the United States Army, and was head of the medical staff on the Northern frontier during the war of that date. He was a Fellow of the American Academy of Arts and Sciences. He died in 1832.

John Rogers practiced at Plymouth, Massachusetts, where he died in 1814.

Thomas Leverett was surgeon of a privateer during the Revolution. He died in 1784.

Aaron Hill settled at Cambridge, and, besides practicing medicine, was representative to the general court and justice of the peace. He died in 1830.

John Haven was a surgeon in the Marine Service, and was lost at sea.

Samuel Woodward was born at Weston in 1756, served as surgeon in the Continental army, and after the war settled at Newburg, New York, where he practiced until his death in 1785.

Of the class of 1777, Ebenezer Crosby, John Eliot Eaton, John Goddard, Daniel Noyes Poor, Jonathan Porter, and George Sparhawk practiced medicine. Crosby I have considered in the American Revolution period.

Eaton practiced at Dudley, where he died in 1812.

Goddard, at Portsmouth, was representative to the General court; he died in 1829.

Poor at Newbury, died in 1837.

Porter, born at Bridgewater, Massachusetts, July 5th, 1755-6, practiced medicine in Boston after service as surgeon in the Revolutionary army.

Sparhawk practiced at Walpole, New Hampshire, till his death in 1847.

The three members of the class of 1778 who studied medicine stood high in the profession. William Spooner I have treated at some length as an "eminent alumnus."

Samuel Church was born at Amherst in 1756. After graduation he studied medicine with Colman of Amherst, a conspicuous man in those days. After Church had qualified, he began practice at Sunderland, Massachusetts. He joined the Massachusetts Medical Society and became a writer. None of his productions remain, as they were lost with his only son, who perished on board the "Lexington," in Long Island Sound, in January, 1840. In his practice, Church belonged to the most conservative school. In the last years of his life he drifted into the practice of law, and held the office of justice of the peace for many years. He died in 1826.

Peter Adams was a pupil of Crossman and E. Wales. He was the principal physician of his native town, Stoughton, from 1780 until 1832, the year of his death. He was a member of the Massachusetts Medical Society.

Abijah Cheever, of the class of 1779, practiced at Saugus. He was a son of Major Cheever, and served in the navy during the Revolution. He became a member of the Massachusetts Medical Society in 1800, and in 1810 settled at Saugus, where he died in 1843.

Benjamin Mason practiced at Newport, Rhode Island. He was granted M. D. (Honorary) in 1800, and died in 1801.

Nathaniel Parker practiced at Salem, where he died in 1792.

Barnard Tucker practiced medicine. He died in 1832.

The class of 1780 furnished four practitioners of medicine,—Sylvanus Plympton, Jesse Thomas, Philip Draper, and Elias Parkman.

Plympton was born at Medfield; he practiced at Woburn, where he died in 1837.

Thomas practiced medicine in Maine, and is said to have been murdered in the woods.

Draper was the earliest physician of Dedham, and combined the duties of physician and teacher. Later he moved to Dorchester, where he died in 1817.

The year 1781, on account of our disturbed national finances, was not a propitious time for the College, nor for graduates to undertake the practice of medicine. There were six of this year's class, however, who began the study of medicine soon after graduation.

John Bartlett was born in Boston in 1760, studied medicine under John Warren, and in 1787 began practice at Roxbury. He was much opposed to new theories and new methods. He joined the Massachusetts Medical Society in 1798, to which he contributed an "Account of the effects of a thread around a child's neck." He received the M. D. (Honorary) from Harvard in 1823. He died in 1844.

George Holmes Hall was born at Medford, Massachusetts, in 1763. He was graduated Bachelor of Medicine in 1788, one of the first class to be graduated from the Harvard Medical School. He went to Brattleborough, Vermont, and combined the duties of physician and druggist till his death in 1807.

John Haskins practiced medicine in Quebec, where he died in 1840.

Abiel Heywood began the practice of medicine at Concord, and became a member of the Massachusetts Medical Society in 1806. Harvard conferred the M. D. (Honorary) upon him in 1819. His death took place in 1839.

Nathan Read was born in Western (now Warren), Massachusetts, July 2, 1759. He was a tutor at the College from 1783 to 1787. After that he studied medicine with Holyoke, in Salem. He was a clever mechanic and constructed the first steamboat with paddle wheels, in this country. The trial trip was made in 1789. In 1795 he moved to Danvers, Massachusetts, and in 1807 to Belfast, Maine. Harvard and Dartmouth gave him the Honorary A. M. in 1787. He was a Fellow of the American Academy of Arts and Sciences, and was representative in Congress from Essex district from 1801 to 1803. The invention of tubular boilers is claimed for him. He died at Belfast, Maine, in 1849.

Timothy Swan was a physician at Washington, North Carolina, where he died.

In 1782 Reuben Hayes, Timothy Lindall Jennison, Benjamin Parker, and Larkin Thorndike were graduated, and afterwards studied medicine.

Hayes went to London, where he died.

Jennison practiced at Cambridge, and was elected a Fellow of the Massachusetts Medical Society in 1803. He was a tutor at Harvard from 1785-1788. Harvard gave him the M. D. (Honorary) in 1824. He died in 1845.

Parker practiced at Bradford. He was elected a member of the Massachusetts Medical Society in 1810, and was given

the M. D. (Honorary) by Dartmouth in 1812. His death occurred in 1845, at the age of eighty-five years.

Thorndike was a surgeon, and practiced at Beverly, Massachusetts. Dartmouth gave him the A. M. in 1786. He died in 1800.

There were but two of the class of 1783 who studied medicine—Oliver Prescott and Joseph Taft.

Prescott was a son of Oliver Prescott (1750). He studied medicine with his father, and with Lloyd of Boston, and settled in Groton. During Shay's Rebellion he served as surgeon in Lincoln's army (1787). He afterwards (1811) practiced at Newburyport. In 1800 he was elected a Fellow of the Massachusetts Medical Society, and delivered the annual discourse before that Society in 1813. Harvard conferred the M. D. (Honorary) upon him in 1815. He was town clerk and chairman of the selectmen of Groton from 1804 to 1811, and represented that place in the general court during 1809-1810. He was a trustee of the Groton Academy from the time of its incorporation until he moved to Newburyport, where he died on September 26th, 1827.

Taft practiced at Weston and Sudbury in Massachusetts, and died in 1824.

Thomas Babbitt and Samuel Griffin were graduated in 1784 and practiced medicine, Babbitt at Brookfield, Massachusetts. He was elected a member of the Massachusetts Medical Society in 1800. His death occurred in 1813.

Five members of the class of 1785 became physicians. Joseph Gardner Andrews was a Bostonian, and joined the United States Army in 1792.

Amasa Dingley was born at Marshfield, Massachusetts. He

settled in New York, " where he displayed abilities and a spirit of enterprise which would have raised him to eminence had his life been protracted." He died in 1798.

Samuel Emerson went to Kennebunk, Maine, where he practiced until his death in 1851, at the age of eighty-six. He was elected a member of the Massachusetts Medical Society in 1787. Harvard conferred the M. D. (Honorary) upon him in 1824.

John Fleet continued his studies at Harvard, and in 1788 was the first man to receive the M. B. from the University. The M. D. (Honorary) followed in 1795. He practiced medicine in Boston, and in 1796 was elected a member of the Massachusetts Medical Society, of which he was recording secretary from 1798 to 1802, and librarian from 1800 to 1813. Upon the request of John Warren, the overseers sanctioned* his choice of Fleet as his assistant in Anatomy and Surgery at the newly established Medical School. He died in 1813.

Nathan Hayward practiced at Portsmouth. He joined the Massachusetts Medical Society in 1803, and was given the M. D. (Honorary) by Harvard in 1819. His death occurred in 1848, at the age of eighty-five years.

Of the forty-five graduates of 1786, five became physicians.

Nathan Bowman at Gorham, where he died in 1797.

Jonathan Leonard at Sandwich. He joined the Massachusetts Medical Society in 1803, received the M. D. (Honorary) from Harvard in 1824, and died in 1849.

William Cutler practiced at Hicksford, Virginia, where he died in 1836.

* September 18th, 1793. Corporation Records.

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Joseph Loring was born in Boston in 1768. After graduating he studied medicine under Danforth, and after completing his studies served as surgeon on the "Massachusetts," the largest merchant ship in the United States. After a trip to Batavia, Loring settled as a physician in Paris; later he relinquished the practice of medicine, and became a merchant at Lisbon, where he died in 1857.

Tapley Wyeth practiced at Sherburne, Massachusetts. He was a member of the Massachusetts Medical Society, and died in 1813.

In the list of graduates of 1787 we find twelve who are known to have practiced medicine. They are:

William Lovejoy Abbot at Haverhill, Massachusetts, where he died in 1798.

Samuel Angier at Ducktrop, to whom Dartmouth gave A. B. (Honorary) in 1787. He died in 1830.

William Amherst Barron was a tutor from 1793 to 1800. Afterwards he went to Calcutta and to Liverpool. He died in 1825.

Oliver Fiske was born September 2nd, 1762, at Brookfield, Massachusetts. In 1780 he joined a regiment then being organized, and was ordered to West Point in time to witness the capture and execution of André. At the close of the war he entered Harvard College and was instrumental in reorganizing the Martin Mercurian band of the University to suppress Shay's insurrection, and later served in General Lincoln's army. When the trouble was over he returned to Harvard and was allowed to resume his place in his class. After graduation he studied medicine under Atherton of Lancaster, and in 1790 began the practice of his profession at Worcester,

Massachusetts. In 1803 he was elected a member of the Massachusetts Medical Society, and in 1811 delivered the annual discourse before that body. Harvard conferred upon him the M. D. (Honorary) in 1824. He took an active part in public affairs. In 1803 he was appointed special justice of the court of common pleas, and served for five years as a member of the executive council. He was corresponding secretary of the Linnaean Society of New England; of the Worcester Agricultural Society; counsellor of the American Antiquarian Society; and register of deeds. He was a member of the American Academy of Arts and Sciences, and for some time editor of the "Massachusetts Spy," an old and prominent political paper at Worcester. He wrote an interesting essay on an epidemic which prevailed in Worcester county, and so became a local authority. It is said that "He was a scientific physician, being well acquainted with natural philosophy, chemistry and physiology, so far as contributed to a correct and successful practice." He died in 1837.

Timothy Fuller was a native of Dedham, Massachusetts, where he practiced. He died in 1799.

Walter Hunnewell practiced at Watertown. He joined the Massachusetts Medical Society in 1808, and received the M. D. (Honorary) in 1825. He died in 1855, aged eighty-six years.

Ebenezer Learned received his M. D. (Honorary) from Dartmouth in 1820. He died in 1831.

Moses Little practiced at Salem, was a member of the Massachusetts Medical Society, and died 1811.

Ephraim Morton was lost at sea in 1793.

Nathaniel Sheperd Prentiss was born at West Cambridge, where he died in 1853, aged eighty-seven years. He was a

member of the Massachusetts Medical Society. His medical studies were under Atherton of Lancaster. He practiced for nine years at Marlboro, then moved to Roxbury, Massachusetts. There he was principal of the grammar school for many years, and was town clerk for thirty years. He was also representative to the general court. He is said to have been greatly beloved.

Isaac Rand was the son of the eminent Boston physician of that name who has been mentioned as one of Lloyd's early pupils. After graduation, the younger Rand studied medicine with his father and settled in Boston. He too was an incorporator of the Massachusetts Medical Society, and is often confounded in medical literature with his father. His "Essay on Hydrocephalus Internus *" before the Massachusetts Medical Society is credited to his father by many biographers. He died in 1819, three years prior to the death of his father.

Samuel Willard practiced at Strafford, Connecticut, and received the A. M. from Yale in 1810. He died at Cincinnati in 1821.

The class of 1788 had but twenty-eight graduates, and of these George Caryl, James Gardner, William Sawyer, and John Dexter Treadwell became practitioners of medicine.

Caryl was born at Dover, Massachusetts, in 1767, and after graduating studied medicine with Samuel Willard, of Uxbridge. He settled at Dover in 1791, where he died in 1829.

Gardner and Sawyer continued their studies at Harvard, and were graduated with the M. B. in 1792. Gardner settled at Lynn, Massachusetts, and became a member of the Massa-

* Massachusetts Medical Society communications, vol. 1, Series 1, p. 69.

chusetts Medical Society in 1803. He was given the M. D. in 1811. He died in 1831.

Sawyer received the M. D. in 1811. He died in 1859.

Treadwell practiced in Salem. He was admitted to the Massachusetts Medical Society in 1801, and was chiefly instrumental in changing the constitution of that Society in 1803. Harvard conferred the M. D. (Honorary) upon him in 1815. He was a member of the American Academy of Arts and Sciences. His death occurred in 1833.

Of the six graduates in Arts of the class of 1789 who became practitioners of medicine, two received their medical education at Harvard. These were Benjamin Haskell, graduated M. B. in 1793, and Cushing Otis, M. B., in 1792. Both received the M. D. in 1811.

Otis settled at Scituate, and became a member of the Massachusetts Medical Society in 1803. He died in 1837. Haskell died in 1829.

Two other members of this class, James Hervey Pierpont and Ebenezer Starr, received the M. D. (Honorary) from Harvard—Pierpont in 1819, and Starr in 1825; both were members of the Massachusetts Medical Society; Pierpont settled at Portsmouth, and was given the M. D. by Dartmouth in 1817. He died in 1839.

Starr settled at Newton, was a member of the legislature and justice of the peace. He died in 1830.

Levi Lincoln practiced at Hingham; he died in 1829. He was a member of the Massachusetts Medical Society.

Zaccheus Bartlett practiced at Plymouth, where he died in 1835. In 1789, also, Peter DeSales Laterriere and William

Pearson were graduated Bachelors of Medicine at the Harvard Medical Institution, as the new department was then called.

In 1790 Nahum Fay, John Clark Howard, William Ingalls, and Abijah Tufts were graduated in Arts, and afterwards became practitioners of medicine.

Fay received his M. B. in 1793, and practiced medicine in Boston and later at Waltham, Massachusetts, where he died in 1804.

Howard practiced in Boston, was a member of the Massachusetts Medical Society, and a Fellow of the American Academy. He died in 1810.

Ingalls was graduated Bachelor of Medicine in 1794, and received the M. D. (Honorary) from his Alma Mater in 1801, and also from Brown University in 1813, where he was Professor of Anatomy and Surgery. He joined the Massachusetts Medical Society in 1803. He died in 1851, aged eighty-two years.

Nathan Smith, of whom we shall hear more, was graduated Bachelor of Medicine at Harvard in this year, 1790.

Of the College class of 1791, Amos Bancroft was graduated M. B. in 1794, practiced medicine at Groton, was a member of the Massachusetts Medical Society, and became the teacher of many students of medicine. He was killed in an accident in 1848.

Noah Fearing practiced at Bridgewater, and was a member of the Massachusetts Medical Society. He died in 1824.

Thomas Pickman was admitted to the Massachusetts Medical Society in 1803. He practiced at Salem, where he died in 1817.

Luther Stearnes was graduated M. B. in 1797. He was

a tutor at Harvard; afterwards he settled at Medford, and became a member of the Massachusetts Medical Society. Dartmouth gave him the A. M. in 1791, and Harvard the M. D. in 1811. He died in 1820.

Benjamin Turner settled first at Milton, and afterwards at Framingham, Massachusetts, where he practiced until his death in 1831.

John Walton was graduated M. B. in 1794. He settled at Pepperell, Massachusetts, became a member of the Massachusetts Medical Society, and received the M. D. in 1811. He died in 1862, aged ninety-two years.

James Otis Prentiss was the only graduate of the Medical Institution in this year, 1791.

Josiah Bartlett received the M. B. (Honorary) with this class.

Thomas Danforth, William Dix, Jedidiah Ingalls, Frederick May and Hector Orr were graduated A. B. in 1792.

Danforth settled in Boston, and joined the Massachusetts Medical Society in 1800. He died in 1817.

Dix and May were graduated in medicine at Harvard in 1795; May practiced at Bridgewater, and later became Professor of Obstetrics at Columbian University, D. C. He received the M. D. from Harvard in 1811. He died in 1847.

Ingalls practiced at Exeter, New Hampshire, where he died in 1847.

Orr settled at East Bridgewater, and was admitted to the Massachusetts Medical Society in 1803. He delivered the annual discourse in 1817. Harvard conferred the M. D. (Honorary) upon him in 1818. He died in 1855.

There were three future physicians graduated in the class of 1793.

Samuel Brown, who received his M. B. degree in 1797, settled at Holden, joined the Massachusetts Medical Society in 1803, and died in 1805.

Joshua Frost settled at Springfield, Massachusetts, and was a member of the Massachusetts Medical Society. He died in 1832.

Charles Williams Winship was graduated M. D. at Glasgow in 1797, having previously studied medicine under Danforth in Boston. He settled at Roxbury, Massachusetts, and was admitted to the Massachusetts Medical Society in 1803, and gained a decided reputation as "heroic in his practice." He died in 1852.

John Baptiste Menard was graduated M. B. at the Medical Institution, and Hall Jackson and Charles Stockbridge were granted M. D. (Honorary) with this class, 1793.

The year 1794 is conspicuous from the fact that none of the Harvard graduates in Arts of that year pursued the study of medicine. However, a class of five were graduated from the Medical Institution, four of whom had previously received the A. B.—Bancroft, Walton, and Ingalls from Harvard, and Heber Chase from Dartmouth (1791).

Samuel Adams, who was graduated M. B. this year, settled in Boston, was admitted to the Massachusetts Medical Society in 1803, and received his M. D. in 1802. For some years previous to his death (1845) he practiced in Cincinnati.

In this year of 1794, John Haygarth, who had been gradu-

ated a Bachelor of Medicine at Cambridge, England, in 1776, was granted the M. D. (Honorary) by Harvard.

In 1795 Thomas Baker was graduated and afterwards studied medicine. He settled at Dover, New Hampshire, where he died in 1803.

Nathaniel Bradstreet received his M. B. degree in 1800. He settled at Newburyport, Massachusetts, and joined the Massachusetts Medical Society in 1803. He died in 1828.

Ebenezer Lawrence was born at Pepperell, Massachusetts, in 1770. His medical studies were under the instruction of John Brooks, of Medford, and he settled at Hampton, New Hampshire, where he practiced for fifty-one years. He was representative in the New Hampshire legislature. He died in 1856.

Richard Cutts Shannon settled at Saco, Maine, and joined the Massachusetts Medical Society in 1822. He died in 1828.

Ebenezer Coddington Thayer practiced medicine at Braintree, where he died in 1805.

Benjamin Vinton settled in Quincy in 1801; later he was a surgeon's mate in the navy. He died in 1813.

John Fleet, who was the first to graduate Bachelor of Medicine (1788), was given the M. D. (Honorary) with this class, 1795.

William Boyd, John Dixwell and James Jackson were graduated in 1796.

Boyd had practiced in Boston but a short time when his death took place (1800).

Dixwell received his M. B. degree in 1800, and settled in Boston. He joined the Massachusetts Medical Society in

1803, and was vice-president from 1832 to 1834, the year of his death.

Jackson was graduated M. B. in 1802, and M. D. in 1809, and later became one of our most famous teachers, when we will hear more about him. He died in 1867.

From Harvard College there was graduated a class of fifty-four men in 1797, and eight of these afterwards studied medicine.

Moses Adams practiced at Ellsworth, Maine, and was sheriff for Lincoln county, Maine. He joined the Massachusetts Medical Society in 1797, and died in 1839.

Joshua Brackett practiced at Portsmouth, where he died in 1816.

Thomas Fargeus was graduated M. D. at Edinburgh in 1811,* and received the M. D. (Hon.) from Harvard in 1831. He died in 1847.

Henry Gardner practiced at Charlestown, was admitted to the Massachusetts Medical Society in 1806, and died in 1854, aged fifty-two years.

Samuel Manning was graduated M. B. in 1800, practiced at Cambridge, and was admitted to the Massachusetts Medical Society in 1810. He died in 1822.

Issachar Snell practiced at Winthrop, Maine, and was a member of the Massachusetts Medical Society. He died in 1847, aged seventy-two years.

Daniel Stone practiced at Sharon, Massachusetts, where he died in 1842. He studied medicine with Willard of Uxbridge,

* Not honorary. Harvard College Records.

and became a member of the Massachusetts Medical Society in 1815.

John Collins Warren became the successor of his father as Professor of Anatomy and Surgery at the Harvard Medical School. Of him I shall tell more later.

In the Medical Department in 1797, Lyman Spalding received the M. B. degree. He settled at Portsmouth, New Hampshire, and in 1804 received the M. D. from Dartmouth, where he was a lecturer in Chemistry as Nathan Smith's assistant. He died in 1821.

Out of a class of forty-nine graduates in 1798, seven became physicians.

Isaac Adams practiced at Newbury, where he died in 1807.

Andrew Crosswell, of Plymouth, studied medicine under Bartlett (1789) at his native place. He first settled at Fayette, Maine, and later moved to Mercer, Maine, where he practiced until his death in 1858.

Isaiah Cushing joined the Massachusetts Medical Society in 1808, and practiced at Thomaston, Maine, where he died in 1819.

Henry Gardner studied medicine with John Warren and was graduated Bachelor of Medicine at Harvard in 1801, but never practiced. He was a member of the legislature and also State senator. For a number of years he was a trustee of the State Lunatic Hospital at Worcester. He died in Boston in 1858.

Uriah Hagar was graduated Bachelor of Medicine in 1801, practiced at Waltham, and joined the Massachusetts Medical Society in 1816. He died in 1841.

Matthias Spalding practiced at Chelmsford, Massachusetts,

and Amherst, New Hampshire. Dartmouth conferred upon him the M. D. (Honorary) in 1817. He died in 1865.

Robert Thaxter was graduated M. B. in 1802. After having studied and practiced with his father at Hingham, Massachusetts, he settled in 1809 at Dorchester, where he died in 1852 from ship fever contracted while attending the family of an immigrant.

Jonathan White was the only graduate of the Medical Department in this year, 1798.

Five graduates of the college class of 1799 entered the medical profession.

John Clark was given his M. B. in 1802. He died in 1805.

Parker Cleveland was the son of the physician of that name whom I mentioned in the text among physicians of the Revolutionary period. After graduating, Cleveland taught school at Haverhill, Massachusetts, and at York, Maine, and subsequently studied law. He was a tutor at Harvard from 1803 to 1805. Dartmouth gave him the M. D. (Honorary) in 1823, and Bowdoin, the LL. D. in 1824. He was one of the original Faculty at Bowdoin, and the first Professor of Mathematics and Natural Philosophy there. Afterwards he became the Professor of Chemistry, Mineralogy, and Natural Philosophy. He was the first Lecturer on Chemistry in the Maine Medical School, and Dean of the Faculty. He declined the chair of Mineralogy at Harvard as well as the Presidency of Bowdoin College, and continued as an Instructor in the latter College up to the time of his death in 1858. He was a Fellow of the American Academy; a member of the American Philosophical Society, the Geological Society of London, and the Imperial Mineralogical Society of St. Petersburg. He pub-

lished many valuable treatises upon mineralogy and natural philosophy.

Freeman Foster began practice in 1802. He died in 1863.

Charles Macomber settled at Marshfield, Massachusetts, and joined the Massachusetts Medical Society in 1810. He died in 1835.

Rufus Wyman studied medicine under Brown and Jeffries, and was graduated M. B. in 1804. After a year's practice with Jeffries he removed to Chelmsford, Massachusetts, where he practiced until 1817. Upon the founding of the McLean Insane Asylum at Charlestown, now Somerville, he was chosen (March 28th, 1818) its first superintendent and physician. He resigned the place in 1834-35, and settled at Roxbury, Massachusetts. He joined the Massachusetts Medical Society in 1803, and was its president from 1840 to 1842 and delivered the annual discourse before the society in 1830. He died June 22nd, 1842.

Josiah Batchelder, who was graduated A. B. from Dartmouth in 1796, was graduated M. B. from Harvard in 1799.

In the last year of the century the graduating class from Harvard College numbered forty-seven. Of this number, Horatio Bean, John Dwight, Andrew Foster, Isaac Lincoln, and Samuel Weed early became members of the Massachusetts Medical Society—a sufficient guarantee of their high standing in the practice of medicine at that time.

Bean practiced in Boston, where he died in 1828.

Foster was graduated M. D. from the University of Pennsylvania in 1812. He settled at Dedham, and in 1815 removed to Jamaica Plain, where he practiced until the death at Cam-

bridge of his brother, whose practice he assumed. He died in 1831.

Isaac Lincoln practiced at Brunswick. He received the M. D. degree from Bowdoin in 1831, and died in 1868.

Dwight was born at Shirley, Massachusetts, in 1773. After graduation he studied with Jeffries in Boston, where he practiced until 1844. Afterwards he practiced four years at West Roxbury, and then moved to Jamaica Plain, Massachusetts, where he practiced until his death in 1853.

Samuel Weed was born at Amesbury, Massachusetts, in 1774. After leaving college he took charge of the academy at Framingham, where he remained four years, and for the subsequent three years conducted a high school in Medford, Massachusetts. There he studied medicine with Brooks, and had the advantage of meeting the older physicians, Warren, Danforth, Dexter, Lloyd, Rand and others. In 1810 he went to Portland, where a good opening presented itself, and there he was soon fortunate in acquiring a large practice. In his treatment of disease he was cautious to a degree often suggesting doubt and hesitation. This course, however, won him the confidence and respect of the people, so that when in 1852 he fell upon the ice, broke his hip, and was disabled from further practice, his friends subscribed for him an annuity of five hundred dollars during his life. He joined the Massachusetts Medical Society in 1816. His death occurred November 24, 1857, at the age of eighty-three years.

John Hosmer was graduated M. B. from Harvard in 1800, and the three others who received this degree at the same time were Bradstreet, Dixwell and Manning, all previously graduated in Arts.

DISTINGUISHED HARVARD MEN OF THE EIGHTEENTH CENTURY.

CHAPTER VIII.

DISTINGUISHED HARVARD MEN OF THE EIGHTEENTH CENTURY.

WILLIAM BAYLIES.

William Baylies was born at Uxbridge, Massachusetts, November 24, 1743. His father, Nicholas Baylies, represented the town of Taunton for several years in the General Court, took an active part in the affairs of the Revolutionary period, and was chairman of the County Committee of Correspondence. William Baylies was graduated from Harvard College in 1760. After graduation he studied medicine with Elisha Tobey, of New Bedford, (then Dartmouth). Tobey was a Harvard graduate of the class of 1743, and had a very extensive practice. After finishing his medical studies, Baylies married a daughter of the Hon. Samuel White (of Taunton), speaker of the House of Representatives in 1759, 1764 and 1765. He practiced a short time at Taunton, after which he settled at Dighton, where he continued in the practice of medicine until his death, save for a few years spent at Taunton, near the close of the Revolution. He gained a very wide practice, and popularity. He seems to have been much sought as a consultant by neighboring physicians, both on account of his prudence and caution, as well as his knowledge of disease gained by extensive reading and close observation. So thorough and painstaking were his observations, that his prognoses were regarded as infallible. He was essentially a

practical man, well read in the sciences which have an immediate relation to medicine, and he did not allow himself to be carried away by theories or novelties in the treatment of disease. Experience, reinforced by sound scientific reasoning, was the test he applied to all new discoveries and systems. When fully convinced of the proper course to be pursued, he acted with promptitude, decision and energy. In spite of the exacting nature of his practice he found time for studies other than those immediately concerned, especially with metaphysics and theology. Political Economy he studied closely, and found opportunity for applying its best teachings in the legislature of Massachusetts. He was representative from the town of Dighton, and a member of the three Provincial Congresses of Massachusetts, serving on several important committees. In the Provincial Congress he was associated with Benjamin Church, David Cobb, Isaac Foster and Joseph Warren, Harvard graduates, and fellow practitioners. He was a member of the state convention that adopted the Federal Constitution, and in 1800 was one of the presidential electors. He was a judge of the court of common pleas for the county of Bristol for several years, as well as register of probate for that county. Upon the formation of the Massachusetts Historical Society in 1790, Baylies was one of the ten original members, and for many years was active in that organization. He was also an original member of the Massachusetts Medical Society, as well as a member of the American Academy of Arts and Sciences. His Alma Mater conferred upon him the M. D. (Hon.) in 1807. He retained his faculties and abilities to the time of his death in June, 1826.

JOSHUA BRACKETT.

Joshua Brackett was born in New Hampshire at Greenland, in May, 1733. His preparatory studies were pursued under the Rev. Henry Rust at Stratton, and he was graduated from Harvard College in 1752. After graduation he attended to various theological publications, a course he followed more in deference to his parents' wishes than from his own inclination. As *failing health* compelled him to relinquish the ministry, he began the study of medicine. His preceptor was Clement Jackson of Portsmouth, New Hampshire, where he himself practiced throughout his life.

The first fifty years of the eighteenth century produced many eminent physicians in New Hampshire as elsewhere. They were furnished with such means of instruction as their situation admitted, and were aided by those who had studied in Europe, and Brackett was one of the most prominent practitioners in his native State. In 1783 he was made an honorary member of the Massachusetts Medical Society, and, upon the formation of the New Hampshire Medical Society in 1790, he was one of the nineteen charter members.

At the first meeting of the incorporators in 1791, Brackett was elected first vice-president. This was at Exeter on May 4, 1791. He succeeded Bartlett in the presidency in June, 1793, and held that office until 1799 when ill health compelled him to resign. His gift of one hundred and forty-three volumes was the foundation of the present extensive State Medical Library. Harvard conferred upon him the degree of M. D. (Hon.) in 1792.

The study of Natural History and Bontany always greatly interested Brackett, and he undertook the establishment of a

professorship in those branches at the College in Cambridge. Through his efforts, donations amounting to several thousand dollars were secured for the purpose, and upon his death he bequeathed property to the value of fifteen hundred dollars for the same purpose. His widow, besides carrying out the provision of her husband's bequest, of which she said she should "hold his every wish on the subject sacred as a word from heaven," bequeathed an additional sum to the Corporation of the College for the benefit of the same professorship. She also left the sum of five hundred dollars to the New Hampshire Medical Society's Library, and it was resolved by that Society that the name of Brackett should be marked in gold letters on the covers of all books purchased or given in his name and in the following form:

" Brackett
" To The New Hampshire Medical Society."

During the Revolution, Brackett was a zealous and active patriot. He was one of the Committee of Safety, and at an early period of the war was appointed judge of the maritime court in New Hampshire, an office which he honored. The distracting events of that period, however, did not preclude him from study and investigation in medicine. He was an extensive reader; he made it a practice to inquire thoroughly into the cause and nature of each disease coming under his care. Although he kept records of his cases, the notes were found after his death to be too meagre for general use. For the last twenty-five years of his life he kept an accurate thermometrical and meteorological register. Naturally of a kind and affectionate disposition, he endeared himself exceptionally

to his patients. His humanity and benevolence were especially notable in his dealings with the poor. He acquired a wide reputation for skill and success in obstetrics, and in that, as in the practice of other branches of medicine, his motto was, "Imitate Nature." His death occurred on July 17th, 1802. Of him it was said, "In judgment, sound; in friendship, firm; in sentiments, liberal; and in benevolence, unbounded."

SAMUEL DANFORTH.

Samuel Danforth was born in Cambridge in 1740. His father, Samuel Danforth, was probate judge of Middlesex county, and was of excellent Colonial stock. From the year 1643 to 1758 seven of his ancestors and relatives preceded Danforth in the catalogue of Harvard College; three of these were clergymen, and some of the others were prominent in local politics. During his college life at Cambridge, Danforth was conspicuous for his independence and decision of character, traits which distinguished him in his after life. He was graduated in 1758, and studied medicine with the elder Rand at Charlestown. At the same time he became acquainted with Philip Godfrey Kast, then practicing in Boston, and a chemist of German education.

Danforth began the practice of medicine at Weston, Massachusetts, but soon moved to Newport, Rhode Island. Here fortune favored him in his first cases, and a reputation and friendships resulted which followed him through life. After two years he married the daughter of a Mr. Watts in Chelsea, Massachusetts, and settled in Boston. In the Revolutionary troubles he followed the inclination of his inheritance, and became an active partisan on the To[illegible] As a consequence,

his family became separated. His wife and three children took refuge at her father's; his brother went to England, where he died; while he himself remained in Boston, then in possession of the British. After the evacuation he continued the practice of medicine in Boston, at first under some difficulties on account of his politics. This was soon forgotten, however, and his ability and proficiency regained for him the lost prestige. The study of chemistry, then so little known in this country that it was considered an occult and mysterious science, appealed to Danforth. In this study he was greatly helped by a Frenchman, whom the war had brought to America. The new experiments and discoveries of Block, Cavendish, Priestley and Lavoisier stimulated his zeal, and, on the founding of the Harvard Medical School, he was strongly urged for the Professorship of Chemistry. It is said by one of his contemporaries that he declined the offer because there were no suitable apparatus in this country for such a course. His pupil, Aaron Dexter, received the appointment. Some years later, Danforth secured a fairly complete chemical apparatus through his son, whom he had sent to Europe to complete his medical education after the young man's graduation from Harvard. (1792.)

The demands upon Danforth's time became so great, however, on account of his extensive practice, that he soon ceased to work at his chemistry. In 1790 Harvard conferred upon him the M. D. (Hon.). He was one of the original members of the Massachusetts Medical Society, and was chosen president of that body for the years 1795 to 1798. Danforth did not practice surgery, but wisely limited himself to medicine, in which he acquired a great local reputation. He continued

in active practice till he was nearly eighty years old. A writer describes him as "one of the most remarkable men this country has seen. In personal appearance he was tall, thin and erect, with an eye that was penetrating, an aquiline nose, and a chin markedly prominent. His countenance suggested sagacity and strength of character."

In the practice of medicine, calomel, opium, ipecac and Peruvian bark were his favorite drugs. Friction, vesication and the warm bath he strongly recommended. Unlike most of the physicians of his day, he was opposed to bleeding, maintaining that such a remedy greatly reduced the individual's power of overcoming disease. He did much to dispel the popular notion that all diseases originated from disturbances of the liver. His view was that many complaints arose from stomach disorders, and he strongly opposed nostrums and specifics. He carried these convictions into consultation and practice to such a degree that he was often charged with severity. Strongly imbued with belief in the truth of his doctrines, and with the fullest confidence in his own practice, he was unable to bear either opposition or disobedience, for he regarded such acts to be as great an injury to the patient as they were an injustice to the physician. Many attempts were made by his friends to have him commit to writing his opinions and practice; he consented; and, after some progress had been made in the work, he read what had been written, then approaching the fire, he threw it into the flames remarking: "Absurd! of what use is all this, without the mind to apply it."

Eliot writes of him: "Dr. Samuel Danforth was then (1780) rising to an eminence in the profession which has not

been exceeded in Boston. Setting theories aside he formed one of his own; he endeavored to enlist no man, but he persevered in it himself till he acquired a very great confidence in his judgment, and was probably consulted in more cases than any other physician in his day." His close association with Joseph Warren has been mentioned in some previous pages of this volume. He died at his home in Bowdoin Square, in 1827, at the age of eighty-seven years.

George Cheyne Shattuck,* says of Danforth: "By nature and education he was an aristocrat. Possessing a strong mind and a decided manner, and having by unceasing toil and undeviating integrity acquired the confidence of the community, he stood for a long series of years in the front rank of the profession, and his clear and unequivocal prescription was received by his patients as law. Fame was his ruling passion. His theory of medicine was peculiar, and his practice simple and energetic. In his character were combined the true elements of genius; quickness of perception, the power of discovering as if by intuition new relations, and of originating new modes of practice founded on them. Dr. Danforth adopted a philosophy which exerted an unhappy influence upon his religious opinions; his character was not perfect; nevertheless, his duties were faithfully performed. In his family he exhibited the simplicity of a philosopher and the urbanity of a gentleman. To his friends his smiles seemed like the sunbeams from the breaking cloud; to his adversaries his frown was like a tempest with thunder. For more than sixty years he was devoted to the wants of the sick, and died of a paralytic affection."

* Communications to the Massachusetts Medical Society, 1828.

ISAAC RAND.

Isaac Rand was the son of Isaac and Margaret (Damon) Rand, and was born at Charlestown, Massachusetts, May 1, 1743. After the usual course of preparatory studies he entered Harvard College in 1757, and was graduated in 1761. While at College he was known as a classical scholar and a mathematician. This reputation was the reason for his selection by the Faculty to accompany Professor Winthrop to Newfoundland to make observations on the transit of Venus. This event had been looked forward to with great interest by astronomers, and it was a mark of honor, as well as a recognition of Rand's proficiency in mathematics, to be chosen for such a mission. After graduation, Rand studied medicine, at first with his father, and later with Lloyd, of Boston. The course lasted three years, after which he began practice in Boston, where he soon became distinguished for his learning, discriminating judgment, and surgical ability. As a mathematician he sought some tangible demonstration upon which to lean in the practice of his profession. In this he was frequently disappointed and dissatisfied, but found compensation in extensive reading. A contemporary says he "probably read more books than any physician among us." At the beginning of the Revolution, Rand was one of those who believed that the colonists were too hasty in their decision and too weak for success; but he did not become an active Tory. He remained in Boston during the siege, where his duties were very exacting among all classes, notwithstanding his political views.

Rand was one of the most active founders of the Massa-

chusetts Medical Society in 1781, and was its president from 1798 to 1804. He delivered the first annual discourse, given before the Society in 1804, entitled "Observations on Phthisis Pulmonalis and the use of digitalis in the treatment of that disease; with practical remarks on the use of the tepid bath." Forty-nine years afterwards, in 1853, this paper was reproduced in fac-simile by order of the councillors of the Society. Rand also published in the Transactions of the Society "A case of Empyema successfully treated by the operation."

Lloyd's work of placing the practice of midwifery in the hands of physicians was continued by his pupil Rand. In this branch of medicine the latter acquired a reputation which was recognized both by his fellows and the laity. During the prevalence of yellow fever in Boston, the ignorance of the people concerning this disease greatly increased public fear. Rand wrote a series of essays upon the subject. They were published in the newspapers, and in great measure succeeded in allaying popular excitement.

In 1810 Rand was elected an Overseer of Harvard College, at a time when that body consisted of but three members in addition to the *Governor,* the *Lieutenant-Governor,* the *Council,* the *President of the Senate,* the *Speaker* of the House and the *President* of the College, with fifteen Congregational ministers.* Rand served on the board until 1815. He was also a Fellow of the American Academy, and a member of the Massachusetts Historical Society. In 1799 Harvard gave him the M. D. (Hon.).

Rand never lost his interest in the ancient classics, while

* From the towns of Cambridge, Watertown, Charlestown, Boston, Roxbury, and Dorchester.

he was in advance of his time on many of the questions relating to the science of medicine. Towards the end of his life he devoted his leisure hours to the study of theology. By his dignified and courtly manners, his kind yet firm decision, and ready charity, he won the love, confidence and esteem of his fellow men, and retained them in a remarkable degree to the end of his life. He died on December 11, 1822.

WILLIAM SPOONER.

William Spooner was born in Boston, March 24, 1760, a few days after the great fire of that year. On the night of the fire, the house of his parents in Washington Street, then Cornhill, was in danger, and it became necessary to remove his mother. This trial and exposure was said to be the cause of her death soon after his birth. When nine years old he was placed in the care of a Mr. Lovell, (H. U. 1728), headmaster of the Boston Latin School. After a preparatory course of five years, Spooner entered Harvard College. When the Revolution came, the College was broken up, and Spooner went to Sherburne, where he lived with ex-President Locke. He went on with his course at Concord, where the college was established from October, 1775, until October, 1776, when a return to Cambridge was made, and he was graduated in 1778. He immediately began the study of medicine with Danforth, whose practice among the poor at the north end of the town gave exceptional opportunities for the study of diseases.

Here Spooner remained for three years, when (1781) he became a naval surgeon, and so continued until the end of the war. In one of his cruises he was captured and carried to

Barbadoes. Upon the declaration of peace, Spooner sailed for Europe, and continued the study of medicine under Cullen, Monro and Black at Edinburgh. After a four years' course there, a time punctuated by the controversy between Brown and Cullen, Spooner received the M. D. He was also elected a member of the Royal Medical Society of Edinburgh. His dissertation is worth mention. It was entitled "*De Ascite Abdominalis.*" In it he described some experiments made upon himself and two of his friends in January, 1785.

The following summer, 1786, he spent in London, where he and Wistar, of Philadelphia, worked together at Anatomy. He settled in Boston in October of that year, and soon won his way to a paying practice. He was surgeon to the regiment fitted out in Boston to suppress Shay's rebellion, but the command never saw service, as the insurrection was quickly stamped out.

From 1804 to 1811 he was a member of the State legislature, the last five years as senator. Although a decided federalist, Spooner was not a bitter partisan during that exciting period of our history, and so he won the good will of his political opponents. He was a member of the Massachusetts Medical Society, and for many years one of the Censors, and a member of the Boylston Prize Committee. He also was a member of the American Academy of Arts and Sciences, the Massachusetts Historical Society, and the Massachusetts Humane Society. He was a member of the Board of Overseers of Harvard College from 1810 to 1834, and was for many years senior member of the Board. He served for many years also on the school committee of Boston. His political interests were not favorable to the pursuit of medicine, and

his practice suffered accordingly. He was decidedly Brunonian in his practice, for he had adopted those principles while in Edinburgh. Accordingly, in the early stages of disease he used evacuants, while in the later stages he freely used stimulants.

Affable, respectful and courteous, he was a type of the "old school." Broad-minded, benevolent and public-spirited, there were few local institutions of public utility established during his life with which his name is not associated. He died in 1836.

CHARLES JARVIS.

Charles Jarvis was born in Boston in 1748, and was the third son of Colonel Leonard Jarvis, a prominent merchant of the town. As a lad he attended the Public Latin School, and in 1762 entered Harvard, whence he was graduated Bachelor of Arts in 1766.

He developed late; in college he seldom took part in conversation, and spoke even before his friends only with embarrassment. In mature life he became known for his decided opinions, as well as for the fluency, energy, and abundance of his speech. Indeed, it was his early diffidence which is said to have influenced him to choose medicine rather than law after his graduation.

At first he studied medicine with Perkins, a learned and prominent physician of Boston. Later, Perkins went to England, and Jarvis continued his studies with Joseph Gardner. After completing his course at home, Jarvis, too, went to England, where he worked under the best masters. It is said that no young man of his time was better fitted for the practice of medicine. With a good social position and a well

trained mind, he soon became a leader among the Boston doctors of his day. He was unprejudiced, too, as regarded systems. He read the ancients—Hippocrates, Aretaeus and Celsus, and learned to apply the best things in their writings. He was always ready also to accept the good things of his contemporaries. And he was a very human person, free from pomposities and the trammels of tradition. He studied persons as well as diseases. He investigated remote as well as proximate causes, and considered the influence of habits, occupation and heredity. His drugs and procedures were simple;—opium, mercury, cantharades, bark and the lancet. To these he added judicious nursing and regimen. Equipped with the advantages gained in the English hospitals, and making use of the French improvements in surgery, he operated dexterously and successfully. In surgery, as in medicine, he was conservative, and was always opposed to operation while there was any rational hope of curing the patient by other means.

In 1773 Jarvis married a sister of that Sir William Pepperell who captured Louisburg in 1756. When the Pepperell family went back to England upon the outbreak of the Revolution, they urged Jarvis to go with them, but he refused, and turned to take an active and effective stand with his rebellious countrymen. He was a fine looking man; handsome, with a good voice, and had become a convincing and fluent public speaker. He was a bald man with a dome-like head and prominent nose, and was dubbed by an admiring friend "the Bald Eagle of the Boston seat." The soubriquet stuck. So he became popular, and took an active and zealous part in the political events of his time. In the furore raised by Jay's treaty, and the heart-

burnings and frenzies with which our people watched the French Revolution, he was on the popular side. He was a blind advocate of France through all those years, believing that her success under Napoleon counted more for the rights of man than would the final triumph of her allied enemies; and he foresaw little danger in breaking away from ancient traditions of government. Though he suffered some loss of popularity by his adherence to such views, he was rewarded by Jefferson when the latter became President, and received an appointment as physician and surgeon to the Marine Hospital at Charlestown. Jarvis died November 15, 1807.

DAVID COBB.

David Cobb was born at Attleborough, Massachusetts, in 1748. His ancestors were old settlers at Taunton. After a preliminary course of studies under the care of a Mr. Marsh, of Braintree, Cobb entered Harvard in the year 1762. His room-mate and bosom friend at College was Charles Jarvis, "the Bald Eagle of the Boston seat." After graduation (1766), Cobb studied medicine with Perkins of Boston. He was a very industrious student, with an aptitude for the study of medicine. Besides these qualifications, he had a quickness of mind and a natural sagacity which stood by him well in the practice of medicine as well as in his public career. After practicing a short time in Boston, he was persuaded by his father to return to Bristol County. This was about the time when controversy was giving away to action, and men were openly taking sides as Patriots and Loyalists. Cobb's father, who was old and well-to-do, dreaded the possibility of a conflict with the mother country,—not

so the son, however. He was an enthusiastic Revolutionist. Led by an ardent temperament, and strengthened by conviction that the cause was a just one, he became a local leader among the men of the time. In 1774 he represented the town of Taunton in the first Provincial Congress of Massachusetts. In this congress he was associated with his brother-in-law, Robert Treat Paine, a graduate of Harvard (1749), and one of the signers of the Declaration of Independence.

With a disposition such as we know Cobb to have possessed, we look for him in the camp, rather than in the senate. Upon the outbreak of hostilities he served as surgeon. Later, when the army was organized, he accepted an appointment as lieutenant-colonel in Colonel Henry Jackson's regiment. With this command he saw plenty of hard work. He served through the New Jersey and Rhode Island campaigns, and was in command of the little company of twenty men sent out to check the progress of the Hessian cavalry. His activity, talents, and marked military qualities made him conspicuous, and he was selected by Washington to join his military family as aide-de-camp. He remained in that capacity until the close of the war, having been appointed colonel of his own regiment, and finally brigadier-general by brevet. As aide-de-camp he took part in famous actions. He was with Washington when the treason of Arnold occurred, and also at the surrender of Cornwallis. His wisdom, tact, and fidelity were proved in those trying times when officers of the American army, maddened by neglect, directed their anger against the Commander-in-chief himself. In Cobb, Washington found a steady friend. His versatility may be judged from his being selected by Washington to entertain the French officers, as

well as to negotiate with the British commander, Sir Guy Carleton, for the evacuation of New York, and we know that during his military life Cobb formed friendships with many of our historic great men.

At the close of the war he resumed with increased power the practice of medicine. But public life soon claimed him again; he was eminently fitted for the position of judge of the court of common pleas, to which he was appointed in 1784 by Governor Hancock. With this position he combined the duties of major-general of the Massachusetts militia, from 1786 to 1793.

In this dual capacity he encountered the stormy events of 1786, and was found to be the right man in the right place. A rough affair occurred in June, 1786, when a mob collected on Taunton Green to prevent the sitting of the court over which Cobb presided. A way out of the scrape was proposed by Cobb, and accepted by the other judges. Cobb personally went before the rioters and argued them out of their madness. But his promises could not be kept, and in September the thing had to be done again with a still more angry mob. Similar scenes were occurring in other States, and it was evident that a crisis had come when either State authority or anarchy must get the upper hand. The courts, the sheriffs and the militia were depended upon to maintain order and crush the rebellion. Cobb vigorously undertook the business in hand. Court day arrived, and he appeared at the head of his troops. To the appeal of the mob to withdraw the soldiers, he answered in rather melodramatic but convincing fashion, "Away with your whining, I will sit this court if I sit it in blood—I will sit

as a Judge, or I will die as a General!"—a statement which the rioters accepted and took themselves off.

In the following month, insurgents under the command of Valentine gathered again. With volunteers mostly to rely upon, Cobb drew up his command in front of the court house. Valentine, dismounting, defiantly approached. Cobb met him halfway, and, drawing a line along the ground with his sword, said, "Pass that line and I fire;—the blood will be on your own head." Valentine approached the line, paused,—turned his back and retired, and the court sat in peace, much to the satisfaction of our medical hero. We must remember to his credit, also, that an agrarian law, such as the rebels demanded, would have been to his personal advantage.

During the years 1789 to 1793 Cobb was speaker of the House of Representatives. In 1792 he sat in the Third Congress at Philadelphia where he met many of his old friends and associates of the Revolution. On several occasions he acted as speaker of the House.

At the end of his term, declining a re-election, he settled at Oldsborough, near the eastern frontier of Maine, and accepted the appointment of chief-justice of the court of common pleas for the county of Hancock. In 1802-5 he was president of the Massachusetts Senate, member of the Governor's Council in 1808, and lieutenant-governor in 1809. In 1812 he was again a councilor, major-general of the Tenth Division of Militia, and a member of the Board of War for the State.

So we must conclude that Cobb had little time for the practice of medicine. Williams says,* "His contemporaries repre-

* "American Medical Biography," by Stephen W. Williams, M. D.

sent him as having been exceedingly skillful in midwifery, an expert surgeon, and in his general practice bold, sagacious and judicious—somewhat inclined to the Brunonian system, but not to its extravagances. * * * This sagacity in discovering those hidden diseases which often baffle the penetration of the faculty, and are only ascertained by post-mortem examinations, is represented as having been wonderful."

In 1810 he was vice-president of the Massachusetts branch of the Society of the Cincinnati.

He died at the Massachusetts General Hospital, Boston, on the 17th of April, 1830. It was a diversified and eager, almost a great, career; and the man is to be remembered by Harvard men. In words pompous but still vital, a biographer says of him: "A learned and sagacious physician; a true patriot; a gallant soldier; an accomplished legislator; a tasteful scholar; a delightful companion; a man of universal knowledge, and a liberal Christian who loved the whole human race, and was always ready to return good for evil. Educated in the Revolutionary school, he had a high sense of personal honor, and a disinterested spirit which sought no other reward than the consciousness of virtue."

JOHN BROOKS.

John Brooks has been mentioned already in our chapter on Harvard Alumni in the American Revolution, but the record of his life entitles him to further consideration as an "Eminent Alumnus." Politics and the practice of medicine are usually so widely separated that few men are capable of harmonizing the duties of both. The pursuit of one so involves the mind that little or no time remains to be devoted to the

other. True as this is today, the divergence must have been far greater in the almost chaotic era of the Revolution, yet we have seen exceptions, and Brooks was an exceptional man. When the great emergency came, the people looked for advice to the men of education and trained abilities, and sometimes they selected wise guides.

Brooks had hardly finished his seven years apprenticeship under Simon Tufts, at Medford, when a decision which meant much to his future had to be made. The people of Reading, Massachusetts, where he had begun practice, assumed the young man's ability in military matters and elected him commander of a company raised in that town. A study of Brooks's character shows that he was by temperament better fitted for the peaceful practice of his profession. Besides, he was restrained by his obligations to his patients who, reports say, were numerous and exacting from the first. So he decided to quit the service at once, and go on with his work at home. A meeting of the officers was called that he might formally resign his command, but the Lexington fight came and stirred his fighting blood. He could not leave his men, and we hear of him at once on his way to Concord as captain of the "Reading Minute-men." He had his share of hard knocks there and did good service. "Ripley's History" says: "As the enemy passed the road from Bedford, they met a body of minute-men commanded by Major John Brooks. There was a sharp action and several of the British were killed." *This affair brought him a major's commission in the Continental army.

* Massachusetts Historical Proceedings, 1863-64, page 478.

Brooks was hard at work during the whole of the memorable night of June 16, and scarcely were the Charlestown fortifications completed before he was hurriedly sent by Colonel Prescott as confidential officer to inform General Ward of the movements of the British and to ask for reinforcements. It was necessary for him to make this journey on foot, consequently he was prevented from returning in time to take part in the battle of Bunker Hill.

Brooks's high moral sense and sterling virtue are noted by all writers who deal with his story, and they tell how these fine traits were reflected in the sobriety and high discipline of his troops; for he became a rigid disciplinarian, with a knowledge of tactics said to be second only to Baron Steuben's own and to the latter Brooks became a useful lieutenant.

It is not necessary to tell the story of his military career. He was a brave and intelligent man who did his duty, and one sees him in action at White Plains, on the Mohawk river, at Saratoga and Monmouth. The fact that he was acting adjutant-general at Monmouth shows that he had pleased his superiors and won preferment. An eye witness at Saratoga says: "The capture of General Burgoyne and his army may be attributed in no small degree to the gallant conduct of Colonel Brooks and his regiment." He was in the midst of stirring affairs throughout the war, and one event at the end is narrated by a man who was on the spot: "The confidence which Washington reposed in Colonel Brooks was shown on many occasions, and particularly in calling him to his council in that terrible moment when, at Newburg, in March, 1783, a conspiracy of some of the officers had well-nigh disgraced the army and ruined the country. On this occasion, the commander-in-chief,

to whom this was the most anxious moment of his life, rode up to Colonel Brooks with intent to ascertain how the officers stood affected. Finding him, as he expected, to be sound, he requested him to keep his officers within quarters, to prevent them from attending the insurgents' meeting. Brooks replied, "Sir, I have anticipated your wishes, and my orders are given." Washington, with tears in his eyes, took him by the hand and said, "Colonel Brooks, this is just what I expected from you."* Brooks was one of the committee to adjust the officers' accounts with Congress, a duty requiring exceptional wisdom and tact. In after years he was offered a very flattering position by Washington in anticipation of war with France, but he declined, and returned to private life.

Tufts, his old tutor, having reached an advanced age, requested Brooks to take up the practice of medicine at his native town, Medford, where he himself had long held the leading place. This Brooks did, and in 1786 was elected a member of the Massachusetts Medical Society. In 1787 Harvard conferred upon him the A. M. as Yale had done in 1781.

He was a good doctor; wise, shrewd, faithful, observant; as we see in that annual discourse of his before the Massachusetts Medical Society in 1808, with the title "Pneumonia." Dixwell says of him, "As a physician he ranked in the highest class of practitioners. He possessed in an eminent degree those qualities which were calculated to render him the most useful in his professional labors, and the delight of those to whom he administered relief. His manners were dignified, courteous and benign. He was kind, patient and attentive.

* Massachusetts Historical Proceedings, 1863-65, page 479.

His good offices were peculiarly acceptable from the felicitous manner in which he performed them. His mind was well furnished with scientific and practical knowledge. He was accurate in his investigations, and clear in his discernment. He, therefore, rarely failed in forming a true diagnosis. If he was not so bold and daring as some in the administration of remedies, it was because his judgment and good sense led him to prefer erring on the side of prudence rather than on that of rashness. He watched the operations of nature, and never interfered unless it was obvious he could aid and support her.

"In his practice, he added dignity to his profession by his elevated and upright conduct. His lofty spirit could not stoop to the empirical arts which are too often adopted to obtain a temporary ascendancy. He soared above the sordid consideration of the property he should accumulate by his professional labors. Like the good and great Boerhaave, he considered the poor his best patients, for God was their paymaster. In short, he was the conscientious, the skilful and the benevolent physician—the grace and ornament of our profession."

After the suppression of Shay's rebellion and the establishment of the Federal government, in both of which good works Brooks had his share, Washington appointed him marshal, and inspector of the revenue. He was a member of the House, Senate and Governor's Council of Massachusetts, and adjutant-general under Governor Strong. He was elected Governor of the State in 1816, and served seven years. He received the M. D. (Hon.) from Harvard in 1810; and the LL. D. in 1817, and was an Overseer of Harvard College from 1815

to 1818. He was president of the Massachusetts Medical Society in 1823-1825; of the Washington Monument Association; of the Bunker Hill Monument Association, and of the Bible Society of Massachusetts. He was the second president of the Society of the Cincinnati, and a member of the Academy of Arts and Sciences. His death occurred on March 1, 1825, at the age of seventy-three.* He had been a very active, useful man, and this brief sketch does him scant justice. The Massachusetts Medical Society passed the following resolutions:

"Resolved, that the Counsellors regard with deep sensibility the loss by death of the late president of the Society, and that they feel assured that they shall express the sentiments of the society as they do their own, in stating that the society has derived honor from having had as their head a man beloved in private life, justly respected in his profession, & distinguished in his state & country; for the faithful & honorable performance of high military and civil duties."

AMMI RUHAMAH CUTTER.

Ammi R. Cutter was born in North Yarmouth, Maine, in 1735. His father, Ammi Ruhamah Cutter, graduated from Harvard in 1725, was the first minister in North Yarmouth, and was chaplain of a New England regiment at the siege of Louisburg in 1745. Upon the death of his father, young Cutter was sent to Cambridge to be educated under the care of a clergyman. The distance from Yarmouth, Maine, to Cambridge, Massachusetts, was about one hundred and fifty miles; the road was for the greater part of the way through the wilderness, and not without its dangers. The brave lad made the journey with a servant, and many were the "hair-breadth

* Brooks bequeathed to the Massachusetts Medical Society the whole of his valuable medical library. His sword was given to the Massachusetts Historical Society, Boston.

'scapes" he encountered upon that long horseback ride. In after years he delighted in telling the yarn. He was twelve years old at that time, and must have entered college two years later, for he was graduated in 1752. In college he had for a chum, John Wentworth, afterwards Governor of the Province of New Hampshire. The friendship bore upon his career, for we read that he went to Portsmouth, the home of Wentworth, and began the study of medicine under Clement Jackson, the busiest physician of that region.

In the old French war he was surgeon to Rogers's Rangers, and served through that amazing campaign of which Parkman tells. In 1758, however, he again entered the service as surgeon of the New Hampshire troops which later took part in the capture of Louisburg. In this service he contracted smallpox, the scourge of our provincial levies, and among the victims of this disease was his old friend and patron, the commander of the New Hampshire troops.

Upon Cutter's return from Louisburg, in 1758, he married, despite the earnest appeals of his old captain, Rogers, who wanted him back with his rangers.

Cutter was an able, experienced and well bred man, and made his way rapidly in practice, but the outbreak of the Revolution involved him in a sad predicament. His old chum Wentworth was a King's man and government official, while he himself was resolved to cast in his lot with his countrymen. The friendship of youth had grown with years. Sir John Wentworth, Governor of the Colony, had made plans for advancing the prosperity of that province, and the personal interests of his friend and companion were not forgotten. A commission as mandamus counsellor was offered Cutter, but

his patriotism conquered his private feelings, and he joined the Whigs. This difference of opinion, however, did not destroy the bond existing between the two men, and, when the Governor took refuge on a man-of-war near the town of Portsmouth, he asked for an interview with Cutter. It was their last meeting, as Wentworth soon sailed from the port and never returned. Forty years afterwards, however, while Governor of Nova Scotia, we know that he was still in touch with his old college friend.

When Shippen succeeded Morgan (April 11, 1777,) as physician-in-chief of the American army, Congress tried to redeem its own shortcomings in that matter of the medical organizations. The army was divided geographically into departments, and in the Eastern Department (east of the Hudson River) Isaac Foster was made deputy-director-general, with Cutter as his physician-general. The station was at the Fishkill Hospital, on the Hudson.

Cutter had been associated with Washington in previous wars, and doubtless the following letter addressed to him by General Whipple, resulted from the personal interest of the Commander-in-chief. The letter is dated at Philadelphia, April 15, 1777, and runs as follows:

"The army now forming will, I hope, under Heaven, free America from the calamities of a destructive war. The scenes of horror and distress occasioned by some mismanagement in the medical department last year, were really shocking to humanity. Congress being sensible of this, and determined to remedy the evil if possible, have formed a plan on the most liberal principles, with a design if possible to draw into the service of their country, gentlemen of the first eminence from different parts of the continent, many of whom have already engaged. Your humanity, and firm attachment to the most glorious cause that ever mankind was engaged in, will, I flatter myself, induce you to forego the pleasures of domestic happiness for a time, as you will thereby render

a most essential service to your country. I hope, therefore, soon to have the pleasure of hearing of your acceptance of the trust, and of your arrival at the hospital, which for the department in which you are placed will be at some convenient place on the eastern side of the Hudson River."

So, a middle-aged man, he abandoned his great practice, his wife and his ten children, and went earnestly but sorrowing to that Fishkill hospital. There he remained for a year or more, when he returned to Portsmouth, to his old work and his young family. During his absence the eldest boy, a lad in college, had died.

Now Cutter's tastes were domestic. He disliked public life, but he had taken such strong ground upon the Federal side that in the convention which framed the State constitution he felt obliged to become an active supporter of the principles of the Federal party. To that party he clung as long as a remnant of its organization remained. After reaching sixty, Cutter's health began to fail; but, fortunately, his son William, having qualified in medicine, joined him in his practice, and later took over the whole of his father's clientele.

We have seen how Cutter was a valued and trusted physician far beyond the ordinary; his fifty years of active practice is a record of progress and advancement in medical knowledge. When the New Hampshire Medical Society was incorporated in 1791, he was one of the founders, and was for many years its president. His Alma Mater recognized his services by conferring upon him the honorary degree M. D. in 1792. The Massachusetts Medical Society and the Massachusetts Humane Society added his name to their honorary membership list in 1783. He died December 8th, 1820, aged eighty-five years, and the eulogies pronounced over him agree in as-

cribing to him extraordinary intellectual powers, a lofty sense of honor, unbending integrity, and a benevolence which was so true and genuine that it made itself felt by all who came within his influence.

JOSIAH BARTLETT.

Josiah Bartlett was the son of a certain George Bartlett, a sea captain out of the parish of Slocum Regis, in the English Devonshire. George Bartlett came to our Charlestown, where he married Katherine Whittemore, July 18, 1758, and there their son Josiah was born August 11, 1759.

Josiah Bartlett entered Harvard College, but his money affairs went badly, so he gave it up and began medicine in the family of Isaac Foster, a graduate of 1758, and a busy Charlestown doctor. Foster joined the medical department of the American army early in the Revolution, and was chief surgeon at the General Hospital at Cambridge. So Bartlett went with him, became surgeon's mate when sixteen years old, served the wounded of Bunker Hill, and made the acquaintance of John Warren. "I recollect him," he said, "in the camp, accoutred as a private soldier, and ready, at that eventful crisis, to add another victim to the fame of his family, or to engage in any other duties to meliorate the condition of an infant army."*

Bartlett served with Warren in military hospitals, and continued with the army until 1780, when he resigned both his pupilage and his commission to become a naval surgeon. After this he attended John Warren's anatomical lectures. At the close of the war he settled in Charlestown, and became a

* Massachusetts Historical Society Proceedings, vol. I, p. 324.

busy practitioner. One reads of him, as a public servant, that he showed "a degree of activity, attention, and faithfulness which secured to him a high reputation and the approbation of his superiors in office." He married Elizabeth Call, of Charlestown, April 6, 1783.

Bartlett did many things extra-professional. He was a Mason of high standing. For many years he was the only physician in Charlestown, and served as a member of the school committee, as one of the board of selectmen, a civil magistrate, and as moderator of the town meetings. He was a promoter of the Charles River Bridge, and on the celebration the 17th of June, 1794, in honor of the Charlestown Artillery Company, which had seen service in Shay's Rebellion, he was the orator.

In spite of his large practice and the many demands made upon his time for public speaking, he attended a complete course of medical lectures at Cambridge in 1790, and in 1791 he received the degree Bachelor of Medicine (Honorary) from Harvard. The M. D. (Honorary) followed in 1809. In 1798 he was elected a member of the Massachusetts Historical Society, and in 1811, a Fellow of the Academy of Arts and Sciences. He was admitted to the Massachusetts Medical Society in 1789, and became its secretary. He was a promoter of good literature, and one of his discourses delivered before the Society in 1810, entitled "A Dissertation on the Progress of Medical Science in the Commonwealth of Massachusetts," was revised and enlarged under the title "An Historical Sketch of the Progress of Medical Science in the Commonwealth of Massachusetts, being the substance of a Discourse read at the Annual Meeting of the Medical Society, June 6, 1810, with

alterations and additions to January 1, 1813."* This is one of the standard historical papers upon medical questions in Massachusetts in the eighteenth century. Thacher refers to him thus: "Perhaps no man contributed more time and active exertion to improve the state of the Society (Massachusetts Medical), and, through it, the interests of medical literature."

The Reading Society in Charlestown incorporated under the title, "The Washington Hall Association," had Bartlett as an active member, and at the dedication of their building (November 16, 1813,) he read, "An Historical Sketch of Charlestown." This is the most elaborate of his publications, and is "respectfully inscribed to the citizens of Charlestown, in testimony of the author's gratitude for their various and repeated tokens of confidence and esteem."

Bartlett was vice-president of the Charlestown branch of the Washington Benevolent Society. In 1813 he received the thanks of this Society "for his excellent and appropriate oration." In 1815, at the funeral of John Warren, he was one of the pall bearers, and was selected by the Grand Lodge of Masons to deliver the eulogy on Warren. Among other things he said, "By a connection with the military hospitals it was my happiness, in early life, to enjoy the friendship of the deceased. His candid attentions were continued in my riper years; and his kindness in periods of domestic sickness and adversity I rejoice publicly to acknowledge with unfeigned gratitude."

Bartlett's last public service was in 1817, when he was

* Massachusetts Historical Collections, vol. I, Second Series, p. 105.

chairman of the committee appointed to welcome President Monroe to Charlestown. Here is a specimen of his style:* "We have the honor, Sir, in behalf of the inhabitants of Charlestown, respectfully to welcome you to this ancient settlement, which has once fallen a sacrifice to freedom, and still retains some vestige of the Revolutionary War, in which you engaged at an early period of life.

"We cheerfully unite with our countrymen in the expression of esteem and confidence to which your illustrious character and station entitle you; and we rejoice that, whilst your administration has commenced under such auspicious circumstances, we can anticipate its progress with public approbation, and its termination with renown to yourself and prosperity to the nation."

Late in life he indorsed the notes of a worthless relative, was forced to meet them, was left nearly penniless, and died broken hearted on the third of March, 1820. Thacher says of him, "for industry, activity and intelligence he was remarkable. He never declined any duty which was assigned him, and always executed speedily and thoroughly; and was, of course, constantly resorted to for difficult services." His friend and fellow townsman, Thomas Hooper, says: "He was eminent in his profession, skillful in his practice and his helping hand was always ready and open to aid in public improvements and private charities."

* Massachusetts Historical Society Proceedings, p. 329.



DISTINGUISHED HARVARD MEN

(CONTINUED)

CHAPTER IX.

DISTINGUISHED HARVARD MEN.—(CONTINUED.)

EDWARD AUGUSTUS HOLYOKE.

"The life of Dr. Holyoke is a most striking example that faithful devotion to the interests of one's chosen profession will assure eminence, honor and distinction to one who thus lives, and obtains for such a person a remembrance in the affections of mankind which will be fresh when the reputation of those who use their talents selfishly shall have faded away." Such were the conclusions of the committee of physicians appointed by the Essex South District Medical Society in 1829 to frame a suitable memorial to their late associate, Edward Augustus Holyoke.

Holyoke was born at Marblehead, Massachusetts, on August 1st, 1728. He was the son of Edward and Margaret Holyoke (daughter of Colonel John Appleton, of Ipswich, Massachusetts, and twice married). His father was born in Boston, and was graduated from Harvard College in 1705, where he was afterwards Tutor, Librarian, Fellow and President. A paternal ancestor of Holyoke was among the original grantees of the town of Lynn, Massachusetts, in 1638. The subject of this memoir went to live in Cambridge at the age of nine, and in 1842 entered Harvard college. The following account taken from a MS. Diary of Holyoke shows the requirements for admission to Harvard at that time.*

* Peirce's "History of Harvard University," p. 238.

"An account of our examination the 13th day of July, 1742, viz. Foxcroft, Green, myself and Putnam. Tutors, 3d Aeneid, Presed't. 2d Cataline, Tully.—Tutors 12th Luke, Presid't 25th Matthew, Greek Testament. —memo. Mr. Flynn examin'd us in Tully; Mr. Hancock, in Virgil; Mr. Mahew,—Greek Test.; Mr. Marsh, in no book, in the forenoon. In the afternoon examin'd by the Presid't, who gave us the following Themes: Foxcroft, Saprentia praestat viribus; Green, myself, Labor improbus omina vincit; Putnam, Semper avarus eget. I finish'd my Theme the 19th day of July, 1742, and was admitted the () of ye August following (after having been on writing my College Laws 20 days, finished them the 10 of August). And we began to recite on the Monday morning after the vacancy was up, which was the 23d day of August, in the year 1742."

Holyoke was graduated A. B. in 1746, and taught school at Roxbury until July, 1747, when he began the study of medicine under Berry, of Ipswich, a graduate of the class of 1712, whose extensive practice was a valuable school for the student of medicine. After the usual course of two years, Holyoke settled at Salem, Massachusetts, (June, 1749,) and there he practiced until the time of his retirement, at the age of *one hundred years.*

The recent death of John Cabot (H. U. 1724) of Salem, led Holyoke to select that place for his work. So closely did he confine himself to the duties of his profession that he seldom left the town unless on business connected with his calling, and never was farther away than a journey of fifty miles. For the first two years his practice was so discouraging that he had serious intentions of quitting the place, but he persevered, and gradually won the confidence of the people, so long the friends of his predecessor, Cabot. With a good constitution and an active mind, Holyoke was fitted to endure the life which lay before him. He improved his leisure by the further study of Latin and French, in both of which he

became proficient. Living at a time when commercial life offered many allurements; when the standard of medical education was unsettled; when the value of medical study was unappreciated by the bulk of the people; and the compensation for medical services at the rate of eleven cents a visit, it speaks for Holyoke's steadfastness of purpose that he continued in the practice of our art. A former pupil described him as possessing much vivacity of disposition, accompanied with great agility of body,—traits which characterized him at College. He was a good scholar; given much to experimental enquiry; averse to hypotheses, whether in medicine or in natural philosophy; very attentive to his professional duties; in the sick chamber, kind, cheerful, but avoiding levity; affable, but extremely dignified; in practice cautious, but not timid, and a believer in mercury in the treatment of pneumonia and diphtheria; in his manners combining urbanity, prudence and politeness to a remarkable degree, earning the application of the statement: "Whose abilities and eminence in his profession, united with his learning and fine tastes for those acts which embellish human life, long rendered him an ornament, not only to his own profession, but to the nation and age in which he lived."

Holyoke was interested in the study of astronomy, and had great powers of observation, as well as a remarkable memory. He recorded daily meteorological changes for eighty years, without an intermission. Besides this labor he noted the name and nature of every disease seen by him in his extensive practice. Some idea of the extent of this work may be gathered from the fact that he filled one hundred and twenty day-books of ninety pages each, with charges for thirty visits on

each page—giving an average of over eleven visits a day for seventy-five years. In an epidemic of measles in 1787 he made over one hundred professional visits a day, for several days, and it is said that there was not a house in Salem in which he had not called professionally. It is a pity that these commentaries of Holyoke have never been connectedly written. They would give us a valuable picture of the medical practice in this country during the eighteenth century. The duty of our colleagues in this matter is thus expressed by Holyoke: "It were much to be wished that practitioners would, more generally than they do, commit to paper their thoughts and remarks upon diseases as they arise, and communicate them to the Society; which, though doubtless it would be attended with some labor, yet this labor would be amply rewarded by the benefit which would accrue to themselves, their patients, and the art they profess. The observations of many, made at the same time, and in different parts of the country, and continued for a course of years, must, when collected and compared together, throw a great deal of light upon many points which are now involved in much obscurity, and would doubtless be the readiest and most effectual method of furnishing material for a history of those diseases which are either epidemical or endemical in our country. Indeed, the joint efforts of many engaged in the same design may accomplish, in a few years, what would be impracticable to a few individuals, though employed for ages."

Holyoke practiced the principles he preached, and became the authority in his region on questions of diagnosis and treatment. In the epidemic of diphtheria at Salem and its neighborhood in 1794-5, his treatment was principally "mer-

curial." An interesting letter of his dealing with the mercurial practice was published in the first volume of the "New York Medical Repository." It is worth reading, and is written to "Dr. ————, in Answer to his Queries respecting the Introduction of the Mercurial Practice in the vicinity of Boston, Mass., by Edward A. Holyoke, M. D., of Salem, Mass.:

"Dear Sir,

"When, upon reading some late English publications, you find the exhibition of mercurial medicines in inflammatory diseases recommended as a *new* practice, though the same is so common and frequent in this vicinity; you naturally inquire how long this practice has been in vogue among *us*, and by whom, or by what means, it was first introduced?

"I know not whether I shall be able to make you any very satisfactory answers to these queries: I will however endeavor to give you all the information I am possessed of.

"A physician from Scotland, who, as I have heard, was a diciple of the celebrated Pitcairn, and who was an intimate acquaintance of some of the first practitioners of Boston, and its neighborhood, about 60 or 70 years ago, was much in the habit of administering mercurials, and, as I have heard, much promoted their use among us, if he did not originate it.

"This practice was much promoted, too, by the writings of Dr. Cheyne, then, and for some time after, much read by physicians here.

"But what probably most contributed to give the faculty a high idea of this medicine, and to bring it acquainted with its virtues and uses, was the happy effect it was found to have, in checking the progress of a most formidable disease, which broke out in this part of America about the year 1734 or 1735, and made cruel havoc, sweeping off multitudes of children, wherever its baleful influence extended: I mean the disease at that time called *the throat distemper;* which I suppose to have been of the same genus with Dr. Huxham's *malignant ulcerous sore throat,* though it was, I believe, much more frequently and rapidly fatal then, than it has appeared of late years among us, or than it has been at any time in Europe. No remedies, we are told were for some time of any avail, to stop its career, and almost all who sickened, died. At length recourse was had to mercurials, as *turpethum minerale and calomel,* and by these, aided by antiseptics, &c. physicians were enabled to make some successful opposition to its ravages.

"It was natural to extend the use of so efficacious a remedy to other disorders, and being found or thought useful in many other cases, it became accordingly much employed.

"But at what period, or by whomsoever the mercurial practice might

have been introduced, in this part of the country, this is certain, that upwards of 45 years ago, it was in common use, in pleurisies, quinsies, inflammatory rheumatisms, and other phlegmasiae, with several gentlemen who were at that time of the first repute as physicians. And this practice was not only adopted by their pupils, but by many other practitioners in the vicinity, and has not, since that time, been wholly laid aside, though I believe it has not been so much in vogue lately, as it was from 30 to 45 years ago. The modern European medical writers, who are most consulted and followed by the faculty here, being totally silent with respect to the exhibition of mercury in fever and in inflammatory diatheses, has, I doubt not, been the occasion of its running into disuse of late. The practice has, however, been still kept up by many, and will doubtless go on increasing, now European miters give it their sanction.

"An idea that mercurials were improper, if not injurious medicines, in inflammatory cases in general, seems to have been adopted by physicians in Europe; but certainly without just foundation, if the above account deserves credit; or if we may believe several European performances lately published; particularly a paper written by Dr. Wright, and inserted in the 7th volume of *Medical Facts,* entitled, *Practical Observations on the Treatment of Acute Diseases, &c.* The enconiums Dr. Wright bestows upon the administration of mercury, in a variety of acute cases, so well accords with our long experience of its efficacy and safety, in this country, that every practitioner amongst us, who has been in the use of it, will readily accede to them.

"For my own part, I profess myself to have been in the habit of prescribing this mineral ever since the year 1751 or 1752. About that time, pleurisies and peripneumonies were remarkably prevalent, and might be called epidemical: the practitioners of this place made free use of it at that time, and, as we found its effects beneficial, have continued to employ it in similar cases ever since.

"It is not pretended, however, that this practice is universally successful, or that it is admissable in all subjects; some persons, as experience shows, cannot bear mercury; a great degree of debility, and irritability, being the immediate consequence of its exhibition, even when given in very moderate doses. Others, from great tenderness and irritability of bowels, seem incapable of admitting a quantity of the medicine sufficient to affect the system. And others, from a certain peculiarity of constitution, though the bowels bear it well, are but little apt to be affected by it, although it be taken freely, and for a considerable length of time. But so far as my recollection serves me, I have never known a failure in pneumonia, where the patient began to take it early, could bear it well, the mouth became sore, and a gentle ptyalism came on it in a few days.

"The preparation of mercury most commonly made use of was mercurius dulcis, or calomel; in larger doses joined with some purgative,

when designed to act as a cathartic; and in smaller doses, of one or two grains, as an alterant, or when the intention was to effect the system and then it was frequently combined with *camphor*, and sometimes with some preparation of *antimony*, and sometimes with small doses of *opium;* or with all of them together, as the prescriber judged most proper; though, in some cases, the native mercury, rubbed down with terebinth &c was preferred.

"Besides these, the *turpethum minerale* was often given in a few grains, (from 1 to 4,) with a little *ipecac*, as an emetic; than which the *Materia Medica* does not, perhaps, afford one more certain or more efficacious; especially in inflammatory quinsies, the croup, or generally when the tenacious phlegm or pituit abounds in the stomach. Small doses, too, of this last preparation, as one third, or half a grain, given in a little Cons. Rosar. or honey, and repeated at short intervals, as two or three hours, have been found to be most powerfully expectorant, in pneumony, where the lungs have been greatly obstructed and loaded with viscid phlegm; and I have seen a number of instances, where patients who seemed on the point of suffocation, were snatched from the jaws of death, by a few doses of this medicine.

"My intention in this letter, however, you are sensible, is not to enter into the mode of exhibiting mercurials, much less to treat any particular disease; my design is merely to answer your queries; to corroborate Dr. Wright's practice, by showing how it corresponds with a practice that has long been common among us here; and to show, that, in this part of the country at least, the same medicine has been successfully employed, certainly for nearly half a century, and probably much longer.

"I am, &c. "E. A. Holyoke.

"*Salem, December*, 1797."

Holyoke was the advocate of many little-valued drugs besides mercury. Several medicines are said to owe their introduction into use entirely to him, but he based his practice principally upon four: Mercury, Antimony, Quinine and Opium.

On account of the habits and occupations of his people—principally agriculture and the fisheries—there seems to have been little surgery in Holyoke's long and busy life. It is related of him that in a period of twenty-five years he never performed or witnessed an amputation of a large limb. But

he was a busy obstetrician.* From early in his career his tutorship was eagerly sought by students of medicine. There is a list of thirty-five men who studied under him between the years 1762 and 1817. At least twenty-five of these men were Harvard graduates.

In the Revolution, Holyoke believed that our people were too hasty. Among his papers is found an apology for having signed an address complimentary to Governor Hutchinson upon the latter's departure from this country. Neither his practice nor his standing in the community seems to have suffered by his political views. He held a commission as magistrate both before and after the Revolution.

Harvard conferred upon him the degree M. D. (Honorary), in 1783, and he was the first person to be so honored by the University; later, in 1815, his Alma Mater gave him the LL. D.

At the formation of the Massachusetts Medical Society, Holyoke was the first president, and held the office until 1784, when the partial loss of his hearing made presiding impossible. He was an original member and later president of the American Academy of Arts and Sciences; a member of the Imperial and Royal Agrarian Academy of Florence; president of the Salem Atheneum; Essex Historical Society; Essex Institute of Savings, and Salem Dispensary. His successor in the presidency of the Massachusetts Medical Society said of him, " In good solid medical learning, few men in our country have surpassed him." The unusual occurrence of a physician reaching the advanced age of one hundred years was an occa-

* In a period of ten years (1791-1801) his list of births attended amounted to 946.

sion for Holyoke's medical friends of Salem and Boston to unite in paying their respects to him.

At the dinner given upon this occasion, James Jackson, president of the Massachusetts Medical Society, presided. Among the toasts offered was: "Our venerable guest: Venerable for his age; still more so for a life devoted to the interests of humanity and sanctified by religion." Holyoke responded, and gave the following: "The Massachusetts Medical Society: May it flourish and prosper, may it continue to improve the Art for which it was constituted, to the utmost of their wishes, and be the means, under Providence, of alleviating the pains and evils of life, and promoting the happiness of society, by suppressing quackery and rendering the business of the profession as perfect as the nature of things admits. And for each individual of the Society, and every other gentleman here present, enjoy health and prosperity, and the pleasing consciousness that he has contributed somewhat to the advancement and improvement of the public welfare."

Here is a journal account of this affair:* "The venerable Nestor of the profession displayed a degree of health and cheerfulness which cannot be called less than wonderful, when connected with his extreme age. The firmness and elasticity of his step in proceeding to and from the Coffee House, where a dinner was prepared for the occasion, though not an infrequent subject for observation to the community, all of whom look up to him with more than a veneration due to a father, was viewed with a peculiar interest at that time. His rich and graceful dress, also—of an ante-revolutionary

* "Boston Medical and Surgical Journal," vol. 1.

fashion and texture, resembling neither in form nor color the garments of modern times, and of which an adequate conception can only be obtained by the examination of ancient portraits—deserved and received particular notice. The suavity, ease, and high bred politeness of the old school, displayed by the patriarch in receiving the congratulations of his brethren, and in bidding them adieu at the close of the festival, will long be borne in the minds of those who had the happiness to witness his characteristic exhibition of those qualities."

In the following month (September 18th) the good people of Salem celebrated the centennial of their town, and again Holyoke was the hero, and offered the following toast: "The Memory of our Pilgrim Forefathers, who first landed on this spot, on the 6th Day of September, 1628 (just two centuries ago this day), who forsook their native country and all they held dear, that they might enjoy the Liberty of worshiping the God of their Fathers, agreeably to the dictates of their conscience."

After that he wrote his "Recollections," as he ought to have done, and he died on the 31st of March, 1829.

"In summing up the character of our venerable friend, it is not too much to say, he was a perfect model of the general practitioner of medicine. His manners were equally removed from servility and arrogance. Free from dogmatism, and trusting to the mild dignity of his manners to enforce his precepts, nothing excited his displeasure more than the swaggering, *Radcliffe* style assumed by some men to impose an idea of their consequence upon the vulgar, who are sometimes prone to believe that excessive rudeness is a mark of genius, and that consummate insolence is, not unfrequently, coupled

with consummate skill. These people he used to term *medical bucks.*"

JOHN WARREN.

It is not easy to write a short biography of John Warren, when we are dealing with the Harvard Medical School; but much has already been told of him and with that this must suffice. There is perhaps no other name so intimately associated both with the political affairs of this community, and with the birth and progress of the Medical School and medical education in New England as that of Warren. Into whatever field we follow John Warren, we find material for a great life. Let us here consider the man as "The Father of the Harvard Medical School."

John Warren was born July 27, 1753, in Roxbury, Massachusetts, where his ancestors had gone in 1720, and had acquired a small estate. He was the youngest of four brothers —Joseph, Samuel and Ebenezer being his elders. Joseph was graduated at Harvard in 1759, and studied medicine under Lloyd. He took a prominent part in the events leading up to the American Revolution, and was chairman for many years of the Committee of Safety, as well as president of the Provincial Congress. He was one of the leading practitioners of New England, and the tutor of many medical students who afterwards became prominent in professional and military life. He was appointed major-general on the eve of the battle of Bunker Hill. Samuel, the second brother, lived his life quietly on the farm at Roxbury, where he died in 1805. Ebenezer settled at Foxborough, and was judge of the court of common pleas for Norfork county. He died in 1824. Joseph Warren, Sr., the father of these sons, was killed by

a fall from a tree in 1755, when his youngest son John was scarcely two years old.

John Warren attended the Roxbury grammar school, then under charge of the Rev. Samuel Elliott, and entered Harvard College in July, 1767, at the age of fourteen. During his college course he supported himself. He is said to have been an excellent student of the classics, and early to have acquired facility in speaking Latin. Among his classmates were James Bowdoin, the son of Governor Bowdoin; Samuel Phipps, afterwards lieutenant-governor, and Governor Sargeant, of Mississippi. While at College he took to the study of anatomy, and it was no doubt due to his enthusiasm that an anatomical club was formed at Harvard College as early as 1771,* where animals were dissected in turn by the members, who demonstrated also the bones of a skeleton which they were fortunate in possessing.

After graduating from Harvard, Warren began the study of medicine under the direction of his brother Joseph, who was twelve years his senior, and had by this time acquired a large and varied practice in Boston. In this school John Warren's most intimate friend was William Eustis, who was intimately associated with many of the most interesting events in the life of Warren. Eustis became a member of Congress, Secretary of War, United States Minister to the Netherlands, vice-president of the Society of the Cincinnati and later Governor of Massachusetts.

Medical pupilage was characteristic of medical study at that time, and was in reality an apprenticeship without the name

* This is "The Anatomical Society" mentioned by Bartlett in his "Historical Sketch of Medical Progress in Massachusetts," 1810.

and articles of contract. It consisted usually of a course of two years, and, besides study and practice, involved the compounding of medicines and the filling of prescriptions in the physician's own "Medicine Room," as well as readiness to answer night calls. At that period there were no medical schools in New England, books were few and hard to obtain, and the training was distinctly a practical one. It had, however, a decided advantage over the more theoretical courses of later years. The close association of teacher and pupil afforded the student opportunities not only for learning the disease, but an opportunity for studying the patient. Every visit was, as it were, a consultation with facilities for discussing the case later. That John Warren was a sound product of this old school, his after life proved. The care and treatment of smallpox was one of the necessary duties of physicians of the eighteenth century. This disease was prevalent in Boston in the year 1764, and Joseph Warren, as well as others, gave it special study. So it is interesting to find Warren, Bulfinch, Samuel Adams and James Latham, the latter "Surgeon in the King's or 8th Regiment of Foot," forming a partnership in 1774 to build a smallpox hospital at Point Shirley for the practice of inoculation, and for the treatment of those suffering from it. This partnership was to last twenty-one years, and include the erection of smallpox hospitals in Pennslyvania and other northern colonies. The events of the succeeding years put an end to this project.

Warren at first contemplated settling in Surinam, and had studied the Dutch language with that object in view, but he decided later to begin practice in Salem, Massachusetts. Here Holyoke had for a long time enjoyed, almost unopposed, the

patronage of the district. The following letter from his brother introduced John Warren to Holyoke:

"Boston, Oct. 13, 1773.

"Sir,—The Person who will wait on you with this is a Brother of mine, who has been with me in the Study and Practice of Physic, and I think has made that proficiency, which justifies my recommending him to the notice of my medical Friends. He is now deliberating upon the Place of settling himself in. Marblehead was first his intention, but since the death of Dr. Fairfield he has thought of Salem. No doubt some person will step in upon this vacancy, as Salem is a large populous town. I take the liberty of requesting you to give your friendly advice to him upon a matter so interesting to him, and I believe your opinions will determine him. Your examination of him in Anatomy, Surgery and Physic, as far as time will permit, will be very agreeable to him, and much oblige me. I must beg your excuse for the trouble I give you, and am Sir,

"With great esteem your most Obedient Servant,

"Jos. Warren."

The letter served its purpose. Holyoke received the young physician kindly, and gave him much encouragement, remembering no doubt the discouraging first two years of his own settlement in the place, when he was almost ready to abandon the field which later came to be associated in our thoughts with the story of his remarkable career.

Warren in his new surroundings found time enough for the then engrossing study of public questions. Soon after settling at Salem he became a volunteer in Colonel Pickering's regiment, and was later appointed surgeon to that body. He was with his command at Lexington, where his three brothers also saw service. After two weeks of encampment at Cambridge he returned to Salem. He was there on the 17th of June. Here is an extract from his journal:*

*"The Life of John Warren, M. D.," by Edward Warren, M. D.

"*June* 17, 1775.—This day,—a day ever to be remembered by the United American Colonies,—at four o'clock in the afternoon, I was alarmed with the incessant report of cannon, which appeared to be at, or near Boston. Towards sunsetting, a very great fire was discovered nearly in a direction from Salem for Boston. At the beginning of the evening, news arrived that a smart engagement had happened in the afternoon, on Bunker Hill, in Charlestown, between the King's regular troops and the Provincials. Soon after, we received intelligence that our troops were repulsed with great loss, and the enemy had taken possession of the ground, which we had broke the night before. I was very anxious, as I was informed that great numbers had fallen on both sides, and that my brother was in all probability in the engagement. I however went home with the determination to take a few hours sleep, and then go immediately for Cambridge, with my arms.

"Accordingly, in the morning about two o'clock, I prepared myself, and went off on horseback, and when I arrived at Medford, received the melancholy and distressing tidings that my brother was missing. Upon this dreadful intelligence I went immediately to Cambridge, and enquired of almost every person I saw whether they could give me any information of him. Some told me he was undoubtedly alive and well, others, that he was wounded; and others, that he fell on the field. This perplexed me almost to distraction, I went on inquiring, with a solicitude which was such a mixture of hope and fear, as none but one who has felt it can form any conception of. In this manner I passed several days, every day's information diminishing the probability of his safety.

"It appears that about twenty-five hundred men were sent off from the ministerial quarters in Boston, to dispossess a number, about seven hundred of our troops, who had, in the course of the night, cast up a small breastwork on the hill. They accordingly attacked them, and after having retreated three times, carried their point (upon which our men retreated with precipitation), having lost about two hundred dead, and about three hundred wounded, amongst whom were a considerable proportion of officers,—Lieutenant-Colonel Abercrombie, Major Pitcairn, etc., a dear purchase to them indeed!"

It was at this period that Warren, driven to rashness by anxiety to learn his brother's fate, tried to pass a sentinel, and received a bayonet thrust, the scar of which always remained.

Warren's natural inclination was to serve as a volunteer, but he was persuaded by his friends, as well as by the distress

of his mother over the loss of his elder brother, to enter the medical department, where his skill and education would be of the greatest service. Now the medical department of the new army was naturally in a very embryonic state. On July 22nd, 1775, Congress voted to establish a hospital for an army of twenty thousand men, and appointed one director-general and chief-physician, at four dollars a day; four surgeons, each to receive one and one-third dollars a day; one apothecary, at one and one-half dollars a day; twenty surgeon's mates, each at two-thirds of a dollar a day; and one nurse to every ten sick men. Benjamin Church was made director-general of the medical department at Cambridge, and Warren, now twenty-two years old, was appointed one of the surgeons. Adams, Aspinwall, Foster, and Haywood, all Harvard graduates, were appointed to serve with him.

This position Warren held during the siege. When General Washington arrived in Cambridge (July 3rd, 1775) he immediately instituted a medical board for the purpose of examining candidates applying for appointment in that department. This was the first attempt to procure competent surgeons for the army. Six of the sixteen applicants were rejected after an examination in anatomy, physiology, surgery, and materia medica. The severity of these examinations is told by Thacher, whose description of one candidate's experience I have quoted.

Upon the evacuation of Boston, Warren was among the first to enter the town, and his description of the conditions resulting from the siege, as well as his account of the "poisoned drugs" alleged to have been left by the English surgeons with malicious purpose, will do much to settle that vexed

question, and remove the monstrous imputation resting upon the name of the British medical officers. Here is what Warren states:

"I, John Warren, of Cambridge, physician, testify and say, that on or about the twenty-ninth day of March last past, I went into the work-house of the town of Boston, lately improved as a hospital by the British troops, stationed in said town, and, upon examining into the state of a large quantity of medicine, there by them left, particularly in one room supposed to have been by them used as a medical store-room, I found a great variety of medicinal articles lying upon the floor, some of which were contained and secured in papers, whilst others were scattered upon the floor, loose. Amongst these medicines, I observed small quantities of what, I supposed, was white and yellow arsenic intermixed; and then received information from Dr. Daniel Scott that he had taken up a large quantity of said arsenic from over and amongst the medicine, and had collected it chiefly in large lumps, and secured it in a vessel. Upon receiving this information, I desired him to let me view the arsenic, with which he complied, and I judged it to amount to about the quantity of twelve or fourteen pounds. Being much surprised by this extraordinary intelligence, I more minutely examined the medicines on the floor, and found them to be chiefly capital articles, and those most generally in great demand; and, judging them to be rendered entirely unfit for use, I advised Dr. Scott to let them remain, and by no means meddle with them, as I thought the utmost hazard would attend the using of them. They were accordingly suffered to remain, and no account was taken of them.

"JOHN WARREN."

To follow Warren from May 11th, 1776, when he left Boston to join the American army in New York, would be to recite the trials and hardships, disappointments and defeats, jealousies and intrigues, which marked the annals of that trying year. When Shippen replaced Morgan (1777), Warren was assigned as superintending surgeon of the military hospital in Boston. This hospital stood at the corner of Milton and Spring streets, near the present site of the Massachusetts General Hospital. Here Warren served till the end of the war.

On November 4th, 1777, Warren married Abigail Collins,

a daughter of Governor Collins, of Rhode Island, and took up his residence at the corner of Avon Place and Central Court, where their eldest son, John Collins Warren, was born on August 1st, 1778. This was a most propitious time for Warren to settle in Boston; his brother Joseph's death, Jeffries' absence in British service, and Lloyd's Tory politics, were all favorable to John Warren's interest.

Early in 1778 Warren, Rand, and Hayward formed a partnership for the purpose of conducting a smallpox hospital in Brookline, which partnership was to last fourteen months.

In 1780 the Massachusetts Humane Society was founded. This society was first proposed by the Rev. Dr. Freeman, Aaron Dexter, Royal Tyler, and Dr. Mayes. The object of the society was stated to be " for the recovery of all persons who meet with such accidents as to produce in them the appearance of death, and for promoting the cause of humanity by pursuing such means, from time to time, as shall have for their object the preservation of human life, and the alleviation of its miseries." Charitable societies were rare at that time, and this one attracted a good deal of attention. The first meeting of the trustees was held at Warren's house. From this society resulted a subscription for a dispensary, which later grew into the establishment of the Boston Dispensary in 1796, as well as the erection of life saving stations and bath houses. In 1798 the Humane Society offered a prize of fifty dollars for the best treatise on the origin of yellow fever, then prevalent. The money was awarded to Samuel Brown, a graduate of Harvard, A. M., 1793, M. B., 1797. From the efforts of this society there resulted the establishment of hospitals for the care of the insane, and eventually the Massachu-

setts General Hospital. In all of these projects John Warren was a zealous worker.

Another society with which the name of John Warren is early associated was the American Academy of Arts and Sciences, which was established May 5th, 1780. Among its founders and earliest members were Governor Bowdoin, President Willard, Samuel Adams, John Adams, Governor Hancock, Holyoke, Jarvis, Sullivan, the Rev. Samuel Cooper, Chauncy and the Rev. Samuel Mather. Among the earliest scientific contributions was a paper by Warren entitled, "Large tumor in the abdomen, containing hair." The paper contained an account of one of the earliest abdominal sections recorded in this country, and the occasion has a special interest for us from the fact that at the next meeting (November 3rd, 1781) of the Boston Medical Society it was "*Voted,* That Dr. John Warren be desired to demonstrate a course of Anatomical Lectures the ensuing winter."

While there appears little in the official records of the Harvard Corporation which justifies us in assigning to John Warren the honor of founding the Medical School, all contemporary writers agree that he was consulted, and that his suggestions formed the basis of the plan for organizing the school submitted by President Willard and Mr. Wigglesworth. Jackson, in his eulogy of Warren, says, "The President proposed to Dr. Warren to accept the office of Professor of Anatomy; the office was created at that time with a view to him, and he furnished, at the request of the President, the plans for a medical school which was adopted by the Corporation."

For a time all the teaching in the school then being organized devolved upon Warren, who was at first the only Pro-

fessor (elected November 22nd, 1782). In an account of the origin of the Medical School, Warren says: "In some of the most populous towns, students were sometimes indulged with the privilege of examining the bodies of those who had died from any extraordinary disease; and, in a few instances, associations were formed for pursuing the business of dissection, where opportunities offered from casualties or from public executions, for doing it in decency and safety. A private society had existed in the university under the denomination of the Anatomical Society, in which brutes were dissected and demonstrations on the bones of the human skeleton were delivered by the members." Warren labored earnestly to make the school a success. A contemporary * says of him, "he was probably more *self-taught* than any man who had undertaken a similar office within the last two centuries." The duties of his office were carried on under great difficulties. The Massachusetts Medical Society feared from the school an abridgment of some of their privileges; the physicians of Boston saw in Warren's appointment as visiting surgeon to the Almshouse the possibility that he might use that position for his own advantage; and, finally, the jealousies engendered by his popularity and success all united in an effort to crush him. The only result of this opposition was the postponement for many years of the use of the Almshouse for clinical teaching. Some idea of the difficulties overcome by Warren may be gathered from the following note on the new school: "Besides the difficulty of obtaining subjects for dissection, was the remoteness of the situation in which the lectures were delivered. Two of the

* James Jackson.

professors were young men, resident in Boston, and their salaries were not sufficient to support them in Cambridge. They depended principally upon their professional practice for support. The lectures were delivered in winter, and as there was then no bridge, the only access to the College was by a circuitous route of eight miles, through Roxbury and Brookline, or over Charlestown Ferry, by a passage frequently rendered long and tedious by obstructions from ice and other matters, which sometimes retarded for hours their arrival at the college. Their duties were performed at great hazard to their health, and considerable sacrifice of private business." Twice Warren offered to resign, but was prevailed to continue his work. In April, 1808, upon the request of Warren, an Adjunct Professor was elected.* His practical skill in surgery and his reputation as a teacher made him eminent as consultant and operator. So extensive became his labors that there is said to be no man in America who has had so great a practice.

He was one of the founders of the Massachusetts Medical Society, and its president from 1804 until his death. Notwithstanding his talents as a teacher and public speaker, he published very few medical writings. The most important of his communications which has reached us is the annual discourse before the Massachusetts Medical Society, 1805, entitled "Mercurial practice in febrile diseases." His death occurred April 4th, 1815. At his funeral, the respect and the esteem in which he was held by the Harvard Corporation, the medical profession, and the general public, was very ob-

* John Collins Warren, his son.

vious. His eulogy was delivered by James Jackson: "It is not easy to decide whether Dr. Warren was most indebted for his success to nature, or to the diligent use of the rich faculties with which he was endowed. His perception was quick and acute, his imagination lively and strong, his memory tenacious, his judgment rapid, his actions prompt and decided. Thus endowed, he could hardly fail to arrive at a very high rank in his profession. Accordingly, we find him constantly receiving marks of honorable distinction through life, and always enjoying the highest confidence of those around him. His temper was ardent, affectionate and generous; his sympathies strong; his spirits usually free from depression. He was remarkable for a cheerfulness and vivacity of temper which spread sunshine on all about him. In his deportment there was nothing imposing; yet he possessed that kindness, and affability, and dignity of manners which constitute true politeness. As a lecturer he had few equals and no superior. With a voice harmonious in an uncommon degree; an utterance distinct and full; language perspicuous and well chosen; above all, with an animation arising from a deep interest in his subject, and from an earnest solicitude that every hearer should be satisfied and profited, he imparted to his pupils his own enthusiasm, and awakened their powers to the highest degree of activity. His death occasioned a chasm in society. Science and humanity will delight in dwelling on his name, and his memory will long be cherished by the community."

THE SCHOOL IN CAMBRIDGE

1782-1810.



HARVARD HALL.

CHAPTER X.

THE SCHOOL IN CAMBRIDGE.

The founding of a Medical School at any time is an event of more than ordinary interest. The fruits of such an institution are among the most precious of our civilization. From such a school there issue men to whom the people intrust their happiness and their lives, but a study of the past shows that a general possession of knowledge and learning by a community is no evidence that they require the same standard of education from their physicians. This paradox has led to misunderstanding, prejudice and perverted sympathy where questions of health and hygiene have come to be decided. Every generation has disputed about the doctors and their shortcomings, about the quacks and their wonder-workings. And it is with a knowledge of all this that we can look back with pride to the high standard of education set by the founders of our school. Let us consider briefly the conditions then existing, not only in politics and finance, but in the conduct of the University; conditions which in less heroic times would not have seemed to warrant the new undertaking.

Dr. Langdon, who had served as President of the College during the war, resigned on August 29th, 1780. Whether he was " credulous " and " visionary " as represented by Eliot, or " lacking in dignity and authority," as Allen describes him, does not matter. When one reflects upon the men and events of that period, our respect for Langdon is increased. His administration (1774-1780) covered an era in our history when

the mere acceptance by an honest man of a position of trust and responsibility in any field was evidence of courage, self-confidence and self-sacrifice. That Langdon was lacking in any of these qualities, biographers do not assert.

The disorganization occasioned by transferring the College to Concord; the presence of Burgoyne's furloughed troops in Cambridge (November, 1777, to November, 1778); the epidemic of smallpox in that town and its neighborhood; the neglect of the General Court to recompense the College for the injuries to the buildings during their occupancy as barracks by the American Army; as well as the fact that, when this loss was finally paid, its amount, through currency depreciation fell from £448 to £112,—these were some of the adverse circumstances of the period. Then there was that discreditable controversy between the corporation and its Treasurer, John Hancock.

Hancock's course must have been exasperating, and the attitude of the Corporation pitiful, for the necessities of the College were grevious indeed. The salary of the College President was derived from the rental of Massachusetts Hall, —about three hundred dollars annually,—a yearly grant of one thousand dollars from the legislature, and the money realized from fees for degrees.* The whole income amounted to about fifteen hundred dollars. The constant depreciation of the paper currency taxed the resources of the College to the last degree. To make good this loss to the President, the Corporation granted ten dollars for one, then fifteen for one, then forty for one, then seventy for one, and finally

* In 1781 this fee was £9 for each candidate.

seventy-five for one. Then came the year 1780, when Massachusetts adopted its new State Constitution, which meant eventually the loss of the annual grant from the legislature,— a grant which had been received since the founding of the College. Langdon had resigned, and the vacancy had not yet been filled. There was little in the first acts of the new legislature to encourage any one to accept the presidency, with the expectation that he could live on the salary.

The first Governor of Massachusetts was John Hancock, who had been removed from the office of College Treasurer as well as from the Board of Government by a vote of the Corporation on account of his conduct in the affairs of the College. Remembering this fact, let us follow this new government for a few years, and learn whether the accepted estimate of its unfriendliness was warranted.

In January, 1781, a petition was presented to the General Court by the Corporation of Harvard praying for a permanent and adequate annual grant for its President's salary. As no legislative action followed, the Corporation addressed a memorial to the General Court in June, 1783, stating "that from the first foundation of the College the President had received his support from the public by an annual salary granted by the General Court; that, after the institution of the Hollis and Hancock professorships, the funds appropriated not yielding a sufficiency for their support, the General Court annually voted an additional sum towards the maintenance of those professors, enough to make their families comfortable, but by no means enabling them to accumulate; that as by far the greatest part of the President's support had been derived from the General Court, the failure of these annual

grants rendered his condition distressing, and the same failure now for two years had reduced the Professors to great difficulties, who could not find ways and means to support their families, should they be cut off from this source." This urgent appeal brought a grant of £156 only for the President; and £100 for each of the Professors. The action differed from all previous grants in this, that, instead of being "gratuitous," the money was now given "on account of services done, and to be done, he (the grantee) to be accountable for the same." For the next year the President received £150, and in the following two years the Corporation was compelled to advance money to him on account of the failure of the General Court to provide the annuity, and because "he must necessarily involve himself in debt, on account of the straits and difficulties, to which he had been reduced."

Finally, in 1786, the General Court gave the President £480, which was declared to be in full for all demands to May, 1786; and this was the last sum given by the Legislature towards the salary of any officer of Harvard College.*

A full financial report of the affairs of the College was made to the Legislature in 1787, showing that the total funds, estimated at their real value, amounted to £12,195 1s 8d, and that the money which had been given to the College and appropriated to particular uses amounted to £14,819 10s 6d. Now in 1777 there had been £11,078 3s 4d in the treasury after deducting the appropriated stock. Thus there had been a net loss of £13,702 6s 2d in ten years.

Vainly petitions and memorials to the Legislature annually

* Quincy's "History of Harvard," vol. II, p. 249.

were presented asking for assistance. Finally, in 1794, the Corporation, despairing of any further reimbursement, cancelled all notes given by the President and Professors.

An important change in policy had taken place in 1779, when the time-honored custom of having none but clergymen elected members of the Corporation was broken, and the Honorable James Bowdoin was chosen to succeed the Rev. Dr. Appleton. Again, in 1784, John Lowell, Esq., was elected to the vacancy caused by the death of the Rev. Dr. Cooper. From these elections there resulted improved business methods which, under the wise administration of Ebenezer Storer, as Treasurer, placed the College upon a prosperous financial basis before the close of the century.

So we may see what were some of the difficulties and discouragements which confronted Joseph Willard when, on December 19th, 1781, he was installed as President of the College.

From the outset, President Willard evinced a strong tendency to foster expansion. We have seen him in his first year attending the anatomical and surgical lectures of John Warren, and in the next year, by his comprehensive report upon the founding of a medical department, forwarding the establishment of a *Harvard University*, already authorized by legislative act (1780).

In that report he recited "That the library of the University be enriched with a collection of the approved authors in anatomy, surgery, physic, chemistry, etc. * * * a collection more perfect than any in America, *as soon as circumstances will permit;*" "that a complete anatomical and surgical apparatus, a set of anatomical preparations with a proper theatre, and other necessary accommodation for dissections

and chemical operations be provided *as soon as there shall be sufficient benefactions for these purposes;*" "*that as soon as ways and means can be devised for raising sufficient funds* for the encouragement of Professors of anatomy, surgery and the theory and practice of physic, the materia medica and chemistry, Professorships of these branches be provided in the University." Let us remember the conclusion of that report: "as the college has not sufficient funds to maintain Professors of the foregoing branches at Cambridge * * * it would be expedient to elect some gentlemen of public spirit and distinguished ability who would undertake the business for the present for the fees that may be obtained from those who attended," and that we now are benefiting by the sacrifices of those high-minded and generous men.

Those benefactors of ours deserve all the feeble interest and recognition these thoughtless generations are giving them. The labors and sacrifices of the first professors have been told, and we have learned something of the Herseys, and Erving, and their timely donations. Probably the earliest medical gift to Harvard was in 1748, when Francis Archibald gave a human skeleton, and William Davis a set of human veins and arteries injected with wax. These were undoubtedly the articles referred to in the account of the losses sustained through the disastrous fire at the College in 1764,—a collection of the most approved Medical Authors, chiefly presented by a Mr. James of the island of Jamaica, to which Dr. Mead and others made additions; also Anatomical Cuts, and two complete Skeletons of the different sexes. In this same year, 1748, Dr. Mead gave his treatise on Poisons, and de Morbis Biblicis; William Vassall, Esq., gave Albinus's Twelve

Tables of the Human Bones, finely engraved and framed. Both these donations were probably lost in the fire. In 1772 John Lane, of London, gave Albinus's Anatomy with plates, folio, with a volume of English references.

John Cuming, of Concord, Massachusetts, was also a benefactor of the Medical School in its infancy. He was born in 1728, entered Harvard College, but soon left and joined the colonial army as a lieutenant in the war of 1755. In this war he was wounded in the hip, captured by the Indians, and carried into Canada. After the war he studied medicine, and practiced at Concord, his native town. His taste for and experience in military life won him the offer of a general's commission on the outbreak of the Revolution. He was a member of the Provincial Congress, and one of the committee to report when defense might and ought to be made along the coast from Plymouth to Boston. Under the Crown he had been a justice of the peace, and he was one of the first justices appointed by the Congress. He was president of the county court of sessions for about twenty years. His faith in the success of the American forces was not strong enough to overcome his doubts, so he resigned and "retired to his house, and scarcely visited his parents till our affairs brightened, and a good prospect of success opened to view." Harvard conferred the A. M. (Honorary) upon him in 1771, and he was admitted to the Massachusetts Medical Society in 1786. He acquired considerable property, and became noted for his generosity and philanthropy. He died in 1788.

Among Cuming's bequests there was "to the University in Cambridge *three hundred pounds sterling*, the income of the same to be appropriated for a professor of physic." He

also made the College a residuary legatee in the same manner as he did the town of Concord. In the settlement of his estate the question of the dower right of the widow caused some delay and confusion, which was adjusted by the College upon terms satisfactory to both.

Esther Sprague, of Dedham, widow of John Sprague, of the class of 1737 (and M. D., Honorary, in 1792), bequeathed (1811) to the College two thousand dollars in trust, the annual interest of that sum to be applied forever to the "better provision and support of the Professor of the Theory and Practice of Physic in the College."

Mrs. Sarah Derby, relict of Ezekiel Hersey, bequeathed in 1791 the sum of one thousand pounds lawful money, "its income to be appropriated to the support of a Professor of Anatomy and Physic."

From such notes it will be seen that the Medical School was founded and assisted through its career at Cambridge (1782-1810) by bequests amounting to less than twenty thousand dollars,* remembering that the incomes from these legacies were often used for purposes other than "to promote medical education as a matter of distinct professional training."

In 1800 Ward Nicholas Boylston laid the foundation of "the Boylston Medical Library," by giving about eleven hundred volumes of selected authors. This proved very useful to the new school. The nucleus of the collection had come from John Nichols, a member of Parliament, who gave a great number of valuable anatomical preparations made by his father,

*Dr. Ezekiel Hersey £1000 in 1770; Mrs. Sarah Derby £1000 in 1790; Dr. Abner Hersey £500 in 1793; Mr. William Erving £1000 in 1791; Dr. John Cuming £300 in 1788.



NICHOLAS BOYLSTON.



Francis Nichols, formerly Professor of Anatomy at Oxford. He also sent a curious collection of calculi, diseased bones, and anatomical copper plates, which, with the gift of Isaac Rand the year previous, of "an injected anatomical preparation," made a very satisfactory collection for Warren's lectures. Ward Nicholas Boylston also presented "a very curious and valuable collection of anatomical books and plates," together with a generous annuity* to be received by the Corporation in half yearly payments for making additions from time to time to the Anatomical Library and Plates, "at present a rich donation, and, when there shall be a surplus of money, to have it applied in yearly Premiums to the Author of the best Dissertation on such Physiological, Medical and Anatomical subjects as may be most useful." This last annuity is the Boylston Prize of today, and consists of two annual premiums of fifty dollars each. Boylston made many other additions to the Medical Library and to the Anatomical Museum during his life, and richly deserves his place upon the Roll of Benefactors.

Now this Ward Nicholas Boylston was a son of Benjamin and Mary Hallowell, his mother being a sister of the Nicholas Boylston† mentioned before, and from him he took the name Boylston in 1770. He was born in Boston in 1749. At the age of twenty-four he embarked (1773) for Newfoundland, and, in further wanderings spent the following two years in Turkey, Syria, Palestine, Egypt, Flanders, and England. He went into business in London, where he remained until 1800.

* This annuity was in 1808 made a permanent fund of $500.00.

† Founder of The Boylston Professorship of Rhetoric and Oratory, endowed 1771, established 1804.

Returning to America, he settled in Boston, and spent the rest of his life there. He died in 1828. Let us note, too, that his maternal great-uncle was Zabdiel Boylston, of inoculation fame. He mentions this relationship as his incentive for founding "the Boylston Medical Library." * In 1823 Harvard conferred upon him the degree A. M., which, however, he declined.

Other generous donors there were, whose gifts of books, anatomical preparations and chemical apparatus did much to foster the aims of the founders of our school.

As early as 1784 the Corporation voted a sum, not to exceed £80, for the purchase of medical books and chemical apparatus, and in 1786 the same body voted the sum of £265 13s 4d for the purchase of Chovet's anatomical preparations in wax, "provided the subscription for that purpose should fall short."

The disadvantage of establishing the School in Cambridge soon became apparent, for there was no hospital there. There was a hospital in Philadelphia, and in that the school there had the advantage of Harvard. In Philadelphia the natural order of events was, hospital first, then school. Here was founded a medical school; for over one hundred years we have been hoping for a hospital on the same foundation, and I shall tell later how those hopes are at last to be fulfilled. Sufficient

* The Boylston Medical Library was founded April 8th, 1803, when the Harvard Corporation voted "That all books which have been or may be presented to Harvard College for the use of the Medical Institution on Anatomical, Medical, Physiological & Chemical subjects by Ward Nicholas Boylston Esquire, or which may hereafter be purchased by any of the proceeds of his fund be kept in a separate apartment and be forever denominated 'The Boylston Library.'"

it is to note now, that the Corporation of the College recognized the defect, and at once made an effort to correct it.

On January 29th, 1784, the Treasurer of the College was instructed "to confer with the Overseers of the Poor in the town of Boston, and endeavor to engage them to appoint the Medical Professor of the University to the care of the sick in the Alms House for better carrying into effect the designs of the Medical Institution."

At a meeting of the Corporation, February 5th, 1784, it was *Voted* that the following memorial respecting a public Infirmary for the advantage of the Medical Institution be presented to the General Court:

"To the honorable the Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled, the Memorial of the President and Fellows of Harvard College hereby sheweth

"That not long since three Professors of the general branches of Physic were added to the University.

"That a Professor of each branch has been duly elected, and regularly inducted into office.

"That the Professors have commenced these Lectures in the University without salary and attended with no public expense. But they find that the Institution is at present incomplete, and must continue so, unless the Professors can have the advantages of publicly teaching the practical part of Physic. Your memorialists, who have frequently turned their attention to this subject, can think of no way, in which the University can remedy this great disadvantage. But they beg leave to observe, that they humbly conceive that your Honors can easily supply what is wanting to complete the Institution without adding to the expense of the Commonwealth.

"Your Honors are sensible that there are always a number of paupers in the Commonwealth, generally invalids, who are not considered as the poor of any particular towns, and consequently are provided for at the expense of the Public. Might not they be collected into a public Infirmary in the Metropolis, or somewhere in the vacinity of the University, and the expense of taking care of them not exceed what the Commonwealth is now obliged to advance for them?

"Should your Honors think such an Infirmary advisable your Memoralists earnestly request that the care of the sick may always be

commuted to the Medical Professor for the time being. Free access to such a public Hospital would give them the advantage of introducing their Pupils to the knowledge of so great a variety of cases in the practice of Physic and Surgery, as must make the Medical Institution of extensive advantage to the Community. Such a Public Infirmary has been established at Philadelphia for a number of years; and the Medical Professorships in that city, have received the highest advantages from it, the Professors being able to introduce their Pupils at all times into that Hospital and thus to accomplish them in the practical part of their Profession.

"The fathers of this Commonwealth have, for several years past, taken the lead among the United States in establishing public Institutions for promoting useful knowledge and science: which has done them the grateful honor in the eyes of the enlightened nations of Europe.

"Your memoralists are happy to find that the same spirit continues, which has encouraged them to present this Memorial, requesting your Honors to take such order thereon, as in your wisdom you shall think the importance of the subject may require; and your Memoralists as in duty bound shall ever pray.

"JOSEPH WILLARD,
"President of University, in the Name of the Corporation."

At a meeting of the Corporation, held March 2, 1784, the President was directed to draw up a memorial to the General Court to obtain a public Infirmary in Cambride "*for the benefit of the Medical Institution.*"

Now the practitioners of Boston took offense at all this, and, quoting from the original manuscript, here is what they did:

"At a Meeting of the Boston Medical Society,* May 3, 1784. Present Pecker, Lloyd, Rand, Gardner, Danforth, Jarvis, Kast, Curtis, Welch, Appleton, Adams, Townsend, Eustis, Homans, and Whitwell.

"On renewing the subject of last evenings debate the following vote passed unanimously in the affirmative

"1. That the annual choice of Physicians to the Alms House has originated on the part of the Overseers of the Poor in the laudable motive of giving every encouragement in their power to the gentlemen of the faculty of this Town consistant with their duty to the Publick.

* Not the Massachusetts Medical Society, as so often erroneously stated.

"2. That the Thanks of the Society are due to the Overseers for the Solicitude discovered by that respectable Board on all occasions to promote the Interests of its members.

"3. That our public medical Business has been hitherto transacted on the terms of perfect equality at least as far as circumstances and situations would admit, and of course that if it should be deemed expedient from the consideration of benefit presumed to result from the establishment of Public Institutions to teach the Medical Art in this Town that a new plan of transacting such Business should be adopted. In that case that the same principles of equality should be still maintained as far as may be, and that no one or more members of this Society ought in reason or can in justice desire to procure those advantages to themselves to which every other is equally entitled.

"4. That in the opinion of this Society the scheme of annexing a Medical Establishment in this Town to the College in Cambridge is not only impracticable but nugatory, as the Pupils can never attend on such an Establishment at such a distance, connected with the best regard to the discipline and good order, so necessary to be observed in that University. And that in the opinion of this Society, tho' the good of the University is the pretex the interests of the Gentlemen concerned is the real motive of their conduct.

"5. That the Society will cheerfully concur in any reasonable Plan for the promotion of medical knowledge which undoubtedly was one of the principal objects of its Institution, but have no idea of this disposition being wrested to the disadvantage of the Society in general to serve the purposes of a few at the expense of the rest.

"6. That the argument of public Utility comes with the worse grace from one* of those Gentlemen as his pecuniary Demands against the Government for his attendance on the State poor are more than double to any that ever were made in the same period for that Business.

"7. That the Faculty in general and those who have not yet had the care of the Alms house in particular must of necessity be much injured if the plan of annexing that House to the College is carried into effect.

"8. That this Society cannot be satisfied unless the gentlemen referred to do in the most explicit manner renounce all pretentions as Professors to the care of the Alms House.

"9. That any disagreement or other ill consequence resulting from this attempt to divert the public medical Business from its usual channel cannot be imputed to the Society but must wholly rest with the Gentlemen who first originated the difficulty.

"10. That if the Medical Professors shall persist in the above mentioned attempt they shall be considered as having violated our Association.

* John Warren.

"11. That a committee of three be appointed to present to the Overseers the 1st 2nd & 4th Vote of this Meeting and to confer with them on the subject. And that Drs Gardner, Jarvis & Danforth were accordingly appointed

"a true Copy
Attest, THOS. KAST, Secy."

Both of the above reports are official. They tell their own story, and mark the men concerned. There is no further record of the matter until 1810 when (July 25th), the Board of Overseers of the Poor of the Town of Boston, "having maturely considered the Vote of the Corporation of Harvard College, and the application of the Professor of Anatomy and Surgery, Chemistry and Materia Medica, passed the following vote: "That the said Professors be permitted to visit the sick in the Alms House for the purpose expressed in their application with such numbers of Pupils as the overseers may think proper for the present year ending in March next, provided that the sick in the Alms House and those in the Town who fall under the care of the Overseers shall receive from them all necessary medical attention and medicine free from expense to the Town, and that any Professor whom the said Corporation may recommend shall be entitled to the same privileges."

In 1785 the College Corporation voted £600 to establish a hospital for seamen at Cambridge, a very generous sum, when we recall the lack of funds for the immediate needs of the college itself, and that the lottery previously granted by the General Court for the purpose of collecting funds was renewed (1786).

In the meantime every effort was being made to raise the educational standard of the medical students. Provision was made for such as had not received a College education to

attend voluntarily lectures in experimental philosophy. This was necessary, as one of the requirements for a medical degree was a knowledge of natural philosophy. Later (1797), such medical students, not to exceed five, were permitted to attend the Astronomical lectures in the College. The fee for this was three dollars. In the matter of fees for the degree in Medicine, we also find a distinction made in favor of those who had previously received a degree in Arts. At the first graduation of Bachelors of Medicine from the School (1788) the fees were fixed as follows: "A Candidate for the Degree of Bachelor in Physic who has taken the Degree of Master of Arts shall, on his being approbated by the Medical Professors, pay to the President a fee of forty shillings; such as have only taken the Degree of Bachelor of Arts, a fee of five pounds; and all others a fee of seven pounds.

"These fees shall be paid into the Treasury, and applied from time to time to the purchasing of Medical Authors and Instruments of Surgery and Chymistry, as they may be needed."

Later (1789) the "Juniors" were excluded from attendance at the Medical Lectures, and the fees resulting from the granting of Medical Degrees were voted to the Professors in order to make good the loss of fees from that class.

THE SCHOOL IN CAMBRIDGE

(CONTINUED)



CHAPTER XI.

THE SCHOOL IN CAMBRIDGE—(CONTINUED).

Let us learn now something of how the lectures at the Medical School were conducted in those early days, and what conditions were to be met before the student received his degree M. B.

When Harvard College became by act of the Legislature Harvard University, in 1780, there was but one school, "Arts," with three Professorships—Divinity, Mathematics, and Oriental Languages. Naturally, any innovation would attempt to conform rather rigidly to existing customs, especially as there were no medical schools in this country firmly enough fixed to serve as models. Now the Rev. Edward Wigglesworth* was the Hollis Professor of Divinity,† and it will be remembered that he and President Willard were the committee to present the report upon which the medical school was inaugurated.

The system followed by Professor Wigglesworth in Theology included two sets of lectures; the first a positive, or controversial dissertation; the second a sort of "quiz" on the preceding lectures, together with such instruction and remarks as the questions raised might necessitate. All Resident Graduates and the Seniors and Juniors were required to attend both these exercises. In 1784 this latter condition was changed, and only those students who were "fitting" for

* Wigglesworth was graduated in 1749.

† Founded by Thomas Hollis (LL.D. Harvard 1787), in 1721.

Divinity were required to attend both exercises. This was the beginning of our elective system.

At the Philadelphia Medical School the student was required to attend at least one course of lectures in Anatomy, Materia Medica, Chemistry, the Theory and Practice of Physic, and one course of Clinical Lectures; also the Practice of the Pennsylvanian Hospital for one year. Then he was allowed to qualify for his public examination, provided he had served a *sufficient* apprenticeship with some reputable practitioner, and had a practical knowledge of Pharmacy. It is interesting to read "This scheme of a Medical Education is proposed to be on as extensive and liberal a plan as in the most respectable European Seminaries, and the utmost provision is made for rendering a Degree a real mark of honor, the reward only of distinguished Learning and Abilities." The course of lectures in the Philadelphia School ran from November to May, and the fees were twenty shillings for matriculation, one guinea to each Professor of the Medical School, and the usual fee for library privileges.

In the University of Edinburgh no specified term of study for the Medical Degree was required. The student attended two courses usually, then he notified one of the professors that he proposed to graduate, whereupon he was privately examined, and a subject for dissertation was assigned to him. If he passed he received his degree.

The Medical Institution of Harvard had no hospital in which to offer clinical instruction, but it had an excellent substitute. We have seen that almost every class of graduates from Harvard College during the eighteenth century contained one or more men who became physicians. Those men,

in turn, became centres of medical teaching, and it is to them that the high standard of medical education in Massachusetts owes its inception. Their extensive fields of work were schools for the medical student. He spent two winters attending the lectures given at Cambridge by Warren, Dexter and Waterhouse, while completing the three years of study in medicine required by Harvard before he could present himself for his degree in Medicine. Those who had not had a college education were given an opportunity at Cambridge to qualify in Latin and Natural Philosophy, both of which were required of such candidates for the M. B.

The courses in Philosophy were given in the spring after the completion of the three months (November to February) lectures in the Medical School. The fee for each course in Anatomy and Surgery was twenty-six dollars from medical students, and twenty-one dollars from senior students at the College who attended the anatomical demonstrations and lectures. Those who attended the special course on Natural Philosophy by Waterhouse were charged one guinea. Besides these fees, Warren, Waterhouse and Dexter each received the income from the legacies already mentioned.

In a letter written by Warren to President Kirkland, dated March 25, 1814, he says, "These combined fees, with the Hersian salary, afforded a handsome compensation, while the professor was not encumbered with many nor heavy expenses."*

As may be imagined, the carrying out of the teaching plan had its difficulties, not the least of which was the procuring of

* Manuscript in Archives at Harvard College.

material for demonstration as I have already explained. Here is an outline of Warren's lectures in one of the first years (1790) of the Medical School.* The lectures began October 6, and were concluded November 17. The dissections began October 15.

1. Introduction: History of Anatomy.
2. General Description and Structure of Single Fibres.
3. The Five Abdominal Muscles.
4. Still on Abdominal Muscles. The Operation of Lithotomy.
5. Peritoneum and Omentum.
6. Jejunum, Ileum, Caecum, Colon, Rectum.
7. Mesentery, Stomach, Spleen, Pancreas *in situ*.
8. Abdominal Vessels, Liver, Bile and Pancreatic Ducts, with Duodenum, in situ.
9. Stomach, Duodenum and Mesentery, Liver and Spleen, removed together, to show Vessels going to each organ. Demonstrate Valoula Colica, Coats of Stomach, Structure of Spleen and Liver.
10. Brain and Ten Pairs of Nerves.
11. Rest of Abdominal Vessels, Division of Genitals, Testes, Scrotum, Tunica Vaginalis, Vas Deferens, Hernia Congenita.
12. Kidneys removed with Vessels, Ureters and Seminel Vesicles, Coats of Penis, Crura, General View of Corpus Spongiosum and Urethra.
13. Bladder removed one inch above Urethrel Opening; Seminel Vesicles and Prostate exposed; open Prostatic Urethra, Caput Gallinginis; show latter in Ox also. Urethra and Cowper's glands.
14. Sphincter Ani and Levatores, structure of Urethra and Coats of Bladder dissected.
15. Female Genitals; Doctrine of Conception and Nutrition of Foetus explained.
16. Muscles of Face and Jaws. Diaphragm.
17. Muscles of Os Hyoides and of Tongue. Cartilages of Larynx demonstrated on a Preparation.
18. Lower Jaw sawed in two. Pterygoid Muscles. Palate, Fauces, Eustachian Tube.
19. Five Pairs of Muscles of Head in front of Longus Colli; Muscles on Thorax, Pleura and Mediastium, the Sternum being raised.
20. Trachea, Bronchi, Great Vessels, and General View of Circulation.

* By John Warren (1900). "Harvard Medical Alumni Association Quarterly," No. 5. July, 1902.

21. Heart, its relations to Lungs; Various Parts of Heart with Circulation.

22. View of Nerves that pass to Heart and Lungs; Diaphragmatic Nerve. Foetal Circulation traced through a foetus.

23. Respiration and its effects on Lungs. Test formerly used to discover Infanticide. External Muscles of Back and Neck.

24. Rest of Muscles on Back of Neck and Trunk; Muscles of Upper Extremity.

25. Muscles of Lower Extremity.

26. Nerves, 7 Cervical, Brachial Plexus and Branches; Intercostal, Lumbar, and Sacral Nerves and Branches.

27. Osteology in general.

28. Angeiology.

29. Ear.

30. Eye.

31. Lecture on Midwifery in Boston, showing Various Cases of Laborious and Preternatural Labor; on the machine.

We have seen how an attempt to secure clinical advantages at the Alms House failed, so we must infer that the clinical course was obtained from the practical school of the general practitioners during the summer months,—not a bad arrangement when one recalls Waterhouse's partiality for theory rather than practice. The Chemical course was more or less intermingled with Philosophy and Mathematics.

Suitable chemical apparatus was provided at an early date, and no one questioned Dexter's fitness for the position he was elected to fill. Materia Medica, and what later grew to be known as Medical Chemistry, were part of his course of lectures.

Precisely what rooms were used by the medical Professors is uncertain, but we can be reasonably sure that the first lectures in the Medical department were given in the basement of Harvard Hall.* As early as 1794 the Library Committee

* President Eliot's address, one hundredth anniversary of the Harvard Medical School, "Boston Medical and Surgical Journal," Oct. 25, 1883.

in their report to the Corporation (August 26) said, "But the Committee *once more* represent the unhealthy, inconvenient and disgraceful situation of the Room where the Chymical lectures are read." In 1797 the Committee reported that "the room occupied by Dr. Dexter is totally unfit for his purposes, and ask that a room be fitted up in Holden Chapel* or elsewhere for Dr. Dexter."

The Library Committee (July 10, 1800,) reported that "Holden Chapel be fitted up in such a manner as to accommodate the Professor and Tutors with four rooms for their private Lectures and recitations, and the Medical Professors

*Holden Chapel was erected in 1744. Samuel Holden was a member of Parliament and a Governor of the Bank of England. Through the suggestion of Thomas Hutchinson, (A. M. 1727; D. C. L. Oxford 1776; ch. Just. Sup. Court, Gov. Prov. Mass.) Mrs. Holden and her daughters gave Harvard College four hundred pounds sterling in 1741, to build a chapel. It is built of brick and is 50 ft. by 34 ft. and 29 ft. high. In *1801* The Chapel was repaired and divided as follows:

1. The East Chamber was denominated "*Medical Room No. I*" and was assigned to the Professor of Anatomy and Surgery. The Lecturer on Natural History was to have the use of the room for his lectures when not occupied by the Professor of Anatomy. The key to this room and the key to the Porch Door was to be kept by the President.

2. The North-East Room was denominated "*Medical Room No. II,*" and was appropriated to the Professor of Theory and Practice. In 1807 the Professor of Chemistry and Materia Medica was allowed the use of this room, together with his own.

3. The South-East Room was called "*Medical Room No. III,*" and was given to the Professor of Chemistry and Materia Medica.

4. The South-West room was called "the Lecture Room," and was used by the college Professors as a lecture and recitation room for Seniors.

5. The North-West lower room was designated "*Reciting Room No. I,*" and was for the use of the Freshman class with their Tutors.

6. The South-West lower Room was called "*Reciting Room No. II,*" and was for the Sophomores.

7. The North-West Chamber was assigned to Juniors and was called "*Reciting Room No. III.*"



HOLDEN CHAPEL, CAMBRIDGE, MASS.

Erected 1744. Was used for lectures in connection with the Medical School.

with three rooms for their Lectures, viz., on the ground floor one, for the Professor of the Theory and Practice of Physic; and one for the Professor of Chemistry and Materia Medica; and the chamber over them for the use of the Professor of Anatomy and Surgery, and for the purpose of accommodating the lectures on Natural History, when not occupied by the Professor of Anatomy * * * and that one-half of the aforesaid general repairs be defrayed by equal assessment on the pupils which may attend the lectures of the said Medical Professors, each Professor to be responsible for the said assessment on his particular pupils * * * and that for the purpose aforesaid, and for defraying any further necessary repairs and expenses in the Medical Department, there be paid to each Medical Professor by each of his Pupils, in addition to the established fees, one dollar for each course of lectures he shall attend in either Department, to be paid by the said Pupils respectively into the College Treasury."

It was also voted that "if any class, or a considerable part of a class, shall by combination or agreement absent themselves from any stated exercises of a Professor or Tutor, it shall be in the power of the Professor or Tutor, whose exercise they neglect, to punish each one so absenting himself by a fine not exceeding one dollar. If the consideration of such absence shall be referred to the whole of the immediate Government, and in their judgment a pecuniary mulct may be a sufficient punishment, it shall be in their power to inflict a fine on each offender not exceeding four dollars."

In 1801 the fee for a Degree in Medicine was thirty dollars in course; for a candidate who had had a college education, and taken a master of arts degree the fee for the medical

degree was seven dollars; if he had neglected to take his A. M. the Medical Degree cost him seventeen dollars; if he had not received a college education the fee was twenty-four dollars, and all of this was retained by the College Treasurer.

While this "shaping" was going on at Cambridge, other forces were at work to establish a standard of medical education throughout the country. With this movement Harvard Alumni were prominently identified, especially in Massachusetts. The State Medical Society was a factor for good in this progress. We remember how that Society asserted its rights when the Medical School was established. Nor did its work stop when it was convinced that Harvard intended to raise the standard rather than lower it. The Society was in effect itself a medical school, with a standard of excellence which the more advanced schools of our own day have but lately attained. First, there was its limitation upon membership; its aim to establish a body of well educated physicians with the high standing which distinguished the Royal College of Physicians of London. That there were but thirty-one physicians in the State qualified to meet these conditions shows the state of medicine among us at that time.

Then there were the requirements imposed before the candidates could pass up from Licentiate to Fellowship, the great detail shown in the selection of books to be studied, and the rigid examination imposed. Unfortunately the Society lacked legal authority to enforce its charter rights upon all men practicing medicine in Massachusetts. Few physicians cared enough for membership to meet its requirements, and, as there was no compulsion, the number of candidates elected into the Society during the first twenty years (1782-1802 inclusive)

was but 49. Besides those elected, there were 25 applicants "approbated" and "approved" during 1782, 83, 84, 85, and of these at least eighteen were graduated from Harvard.*

The Medical Society appointed corresponding and advising committees as early as 1785 § to encourage scientific research and observation, and it is to this action that most of the medical dissertations of that period owe their existence. In a letter † from John Adams to Holyoke, then president of the Massachusetts Medical Society, there is evidence that the Society was closely affiliated with the Royal Society of Medicine of Paris.

In 1789 the General Court‡ authorized the Society to present a report upon a mode of medical instruction requisite for candidates intending to present themselves for examination. This report was presented, and provided that every pupil should be qualified in Greek, Latin, the principles of geometry, and experimental philosophy; the period of instruction was to be *at least three years,* and must include practical work under a physician.** The effect of this action upon the Medical Society is shown in the requirements for the medical degree at the School already described, for the School was then the only body in the State authorized to confer degrees.

Let us follow the doings of the Medical Society for a few

* The law admitting Harvard Graduates in Medicine into the Society without an examination did not go into effect until 1803.

§ The Middlesex, Worcester, Bristol and Kennebeck District Societies were then formed.

† "Life of John Adams," vol. VIII, p. 68, 70: 155-6.

‡ Act of February 10, 1789.

** This was changed in 1813 so as to admit no one who had not studied with and attended upon the practice of a Fellow or Honorary Member of the Society.

years, and see how its action influenced the course of medical education. The Society published its first set of "Medical Papers" in 1790; it considered the question of legislative enactment to prevent the sale of bad and adulterated medicines (November 8, 1786); and in 1803 it amended its original charter, by legislative act, so as to remove the restriction in the number of its members. After that, all respectable physicians in the State were to be admitted by Councillors after an examination by Censors, the present practice; Licentiates and medical graduates of Harvard "after three years approved practice in medicine and surgery," were made Fellows. This change of 1803 in the charter was due to the efforts of two Harvard Graduates, Treadwell and Sewell.

John D. Treadwell was a graduate of the College class of 1788, and was given the M. D. (Honorary) in 1815,—"a young, learned, devoted, and public-spirited physician of Salem, impressed with the inability of the Society to accomplish its aims, endeavored to improve the state of usefulness."§ He was greatly aided by Samuel Sewell, of the class of 1776, afterwards Chief Justice of Massachusetts.

In 1808 a Pharmacopoeia * was published by the Society. This was based upon the plan of the Edinburgh College publication, and did much to establish in this country a modern nomenclature and uniformity in medical preparations. "The American New Dispensatory," by James Thacher (M. D. Hon. 1810) was based upon that Pharmacopoeia, and was submitted to a committee of the Society before publication.

§ Address by R. H. Fitz (Hersian Professor of Theory and Practice), at meeting of American Physicians, Washington, D. C., 1894.

* Prepared by Drs. James Jackson and John Collins Warren.

In the controversy which waxed warm over vaccination at the beginning of the nineteenth century, the Massachusetts Medical Society's report upon that question did much to allay popular misconception and to promote general use of the new procedure.§

At the annual meeting of the Society in 1809, a committee was appointed to devise means for establishing a medical school in Boston. This committee reported that the object could best be attained by removing the Medical School from Cambridge. On February 10, 1810, the General Court granted the Society a township in the District of Maine, and the income from this land was to be used for building a medical school in Boston.

It was the intention of the members of the Society to unite with Harvard in establishing this school, and from this action resulted the attempt of rivals to establish the Massachusetts College of Physicians in Boston, as I shall tell later.

To return to Cambridge and those earlier days; in 1793 John Warren told the Corporation that he needed an assistant in Anatomy and Surgery; and on September 18th of that year the Overseers endorsed his selection of John Fleet for the position.

Fleet had been graduated A. B. in 1785, and was the first medical graduate (1788) of Harvard. He has the distinction also of being the first *assistant* appointed in the Medical School.*

§ The Town of Milton, Massachusetts, was the first to act in a corporate capacity in extending vaccination to its citizens (1809). Massachusetts General Court acted in 1810.

* Fleet does not appear in the records nor in the Catalogue as ever having received an *election* to the position.

At a meeting of the Corporation April 20, 1808, Warren asked that an Adjunct Professor of Anatomy and Surgery be appointed. At the next meeting, held in Boston, April 27, 1808, the following report was accepted:

"The Corporation having considered the Memorial of the Professor of Anatomy and Surgery in which he requested the appointment of an Adjunct Professor, and being desirous to extend and receive the Benefits of his Professorship.

"Voted, That the Corporation may with the approbation of the Board of Overseers elect an Adjunct Professor of Anatomy and Surgery who shall hold his office, if he behave well, as long as the Principal Professor at the time of his Election shall continue in office and no longer.

"2. That the qualifications of the Adjunct Professor and the manner of his election shall be the same as are established for the principal Professor, and his induction to the office shall be under the direction of the Corporation.

"3. That after his induction he shall have the same authority and be subjected to the same duties as appertain to the Principal Professor.

"4. That the duties, fees, perquisites, and emoluments of the Professorship shall be divided between the two Professors by their agreement, subject however to the direction and approbation of the Corporation.

"5. And that all Fees, perquisites and emoluments of the Professorship, shall not be increased in consequence of the election of an Adjunct Professor."

Dexter following the example of Warren asked on May 20, 1808, that an Adjunct Professor of Chemistry and Materia Medica be elected: In October (22nd) of this year the Corporation acted upon Dexter's request:—

"Whereas from the uniform and minute attention requisite for an advancement in Chemical Science it appears desirable and important that one of the Instructors in that department when there shall be two, shall reside at the University.

"Voted that when an Adjunct Professor of Chemistry and Materia Medica shall be chosen it shall be the duty of said Professor to reside at Cambridge in or near the College unless the Professor should reside there."

The new Professorship was confirmed by the Overseers on December 27th, 1808.

On April 27th, 1809, the conditions to govern the Adjunct Professorship were presented. These were the same as those given above for the Adjunct Professor of Anatomy, with this addition:

"6th. That the Professor of Chemistry and Materia Medica or the Adjunct Professor may be required to reside in Cambridge whenever the salary and emoluments of the office shall in the Judgment of the Corporation and Overseers be sufficient to make such residence proper."

On May 4, 1809, John Collins Warren was elected Adjunct Professor of Anatomy and Surgery, and John Gorham was elected Adjunct Professor of Chemistry and Materia Medica. Both were inducted into office August 22nd, 1809.

In this same year of Grace we begin to see the first official accounts of grievious disputes and personal encounters rending our little faculty. Years earlier, the old Boston doctors, outside of the School, had vented a certain amount of natural spleen upon the successful and prominent young professors. Now those same professors, grown old in the midst of a loyal and admiring community, take to the writing of bitter words, and the shouting of harsh language, and even the shaking of fists among themselves. It is all very interesting and human, even if it be not edifying; and to hear of it need not mean a shattering of idols. So, beginning with October 31, 1809, we read:*

"Whereas there are reports in circulation that Dr. Waterhouse, Professor of Theory and Practice of Physic in Harvard College, and lately surgeon to the Marine Hospital in Charlestown has been removed from the latter office on charges said to affect his moral character, and which if true may affect his usefulness in the College, therefore,

"Voted That Chief Justice Parsons and Dr. Eliot with such as the

* Corporation Records, Cambridge Library.

Honorable and Reverend Overseers may appoint to be a Committee to enquire into the truth of said report, giving Dr. Waterhouse an opportunity of being heard thereon and report a statement of such facts as shall result from the inquiry.

"Voted that the President and Judge Davis be a Committee to inquire into the state of the Mineralogical Cabinet belonging to the College, to take care that all the Specimens belonging to the College be immediately placed in the said Cabinet and that the President be requested to take of Dr. Waterhouse the keys of the cabinet and also those which open the doors leading to the Philosophical Chamber, and thereupon Dr. Waterhouse be discharged from any further care of the Cabinet and requested to give the Keys of the Cabinet to the Librarian till further order, with directions to admit any Professor or other Instructor of the College to inspect the Cabinet at his request, and also to deliver to any Professor such specimens as he may want for his Lectures. He giving to the Librarian an accountable receipt for every specimen he shall receive which receipt shall be retained by the Librarian in a book to be kept by him for the purpose, and that the Librarian be directed to show the Cabinet to such Visitors as may wish to see it and that the vote of the Corporation relative to the Cabinet passed on the 10th ult. be rescinded.

"Voted also that the Committee named in the last vote be requested to cause a correct systematical arrangement of the minerals in the Cabinet to be made, and employ such agents therefor as they may think proper."

And be it observed here, the Corporation had previously voted that, at the expiration of the present course of lectures by Waterhouse on Natural Philosophy, no person besides the Professor of Natural History be allowed to give Lectures on it.* Remembering the above vote, and avoiding all personal issues we next read:

July 13, 1810. Meeting of the President and Fellows of Harvard College at Boston.

"The following votes recommended by the Committee appointed to consider the memorial of the Hersey Professor of Anatomy and Surgery and the Erving Professor of Chemistry and the Materia Medica requesting that they be permitted to deliver the annual course of Lectures in their respective Professions in Boston were passed, viz:—

"1. That the said Professors of Anatomy and Chemistry shall annually

* Waterhouse had been in the habit of giving a special course from which he derived considerable remuneration.

deliver a course of Lectures in their respective rooms in the University on these branches of Science respectively well adapted to the purpose of instructing the students therein to such members of the College at such times and under such regulations as the Corporation shall prescribe and without any fee from them therefor.

"2. That the aforesaid Professors may from time to time deliver in Boston full Courses of Lectures in their respective professions to Medical students who having attended the same according to the Rules already prescribed in the Medical Institution they shall be entitled to the same privileges as if they had attended the said Lecture in the University."

One of the greatest needs of the Institution was clinical material, and on July 18, 1810, the Corporation appointed Mr. Lowell a committee to meet a committee of the board of overseers of the poor of Boston to arrange a course of Clinical Lectures in Medicine at the Alms House in Boston. We have already learned that this arrangement was effected (July 25th, 1810).

At this July 18th meeting, Judge Davis and Mr. Lowell were appointed a committee to consider the expediency of establishing a Professorship of Clinical Medicine in the University of Cambridge, "the Lectures of the Professor to be read in such place as may be found most convenient to give the Pupils an opportunity of seeing the most extensive practice, and report a plan for such an establishment."

"At a meeting of the Corporation of Harvard College holden in Boston on the 23rd day of July 1810, The Committee appointed by the Corporation to consider the expediency of establishing in the University at Cambridge a new Professorship of Medicine to be entitled 'The Professor of Clinical Medicine' now report in favour of such an establishment: which report after due consideration is accepted and accordingly the Corporation considering:—

"That the existing Professorships of Medicine in the University were founded at a period when Medical Science was but little advanced in this Country, and when the number of Medical Students was much smaller than at present, and that in consequence of great increase of pupils and the growing importance of this branch of knowledge it may become neces-

sary to extend the advantages of medical instruction by dividing those branches of that Science which are too extensive and by adding from time to time new Professors, and that in consequence of an application from two* of the Medical Professors and a conviction that Medical Science and the interests of the University would be promoted, the Corporation have seen fit to Authorize as far as in them lies, the delivery of full courses of Lectures in Anatomy and Surgery, Chemistry and Materia Medica in the town of Boston and that in consequence of this arrangement it has become expedient that a new Professorship should be established to be entitled 'the Professorship of Clinical Medicine' so that the pupils may enjoy one of the chief advantages which has been expected from the extension of the Medical School, a benefit which has been considered by medical writers one of the most valuable means of acquiring medical knowledge and which it appears was contemplated in the original foundation, now therefore in consideration of the promises—

"It is hereby ordained by the Corporation

"1st. That there shall be and hereby is established in Harvard University a new Professorship of Clinical Medicine and it shall be the duty of the Professor who may be elected to said office at such times and place as may be pointed out by the Corporation with the approbation of the Overseers to deliver Courses of Clinical Lectures, to point out at the bedside of such sick persons where cases my be suitable for the purpose, the Symptoms of the disease under which they may labor and to Lecture upon the nature of such diseases and the indication of care and methods of treatment which have by experience been found successful in similar diseases.

"2dly. It shall be the duty of all such Persons as shall apply to the Government of the College for degrees in Medicine to produce a Certificate from the Professor of Clinical Medicine of their having duly attended such Courses of Lectures of said Professor as the Laws of the University may require; and until such Laws shall be enacted in relation to the Professorship the students shall conform to such Rules and Regulations as to the attendance upon the Professor of Clinical Medicine as they are subjected to as to their attendance on the other Medical professor.

"3rdly. The Students in Medicine shall notwithstanding be held to attend as heretofore the Courses of Lectures which may be delivered by the Professor of the Theory and practice of Physick provided the said Lectures be delivered in some convenient place where the Students (having regard to their attendance on the other Medical Professors) can attend to within some convenient place and at some convenient time in the town of Boston.

"4thly. Until lectures in the Theory and Practice of physick shall be

* Waterhouse did not join in this petition.

delivered in Boston, degrees may be conferred upon such students in Medicine as shall produce Certificates of their having duly attended full Courses of Lectures delivered by the Professors of Anatomy and Surgery, Chemistry and Materia Medica, and of Clinical Medicine, notwithstanding such students may not have attended the Lecture of the Professor of the Theory and practice of Physick.

"5thly. That the qualifications of the Professor of Clinical Medicine and the mode of election of such Professor as well as the power of the Corporation and Overseers as to superintendency and control and likewise of Removal from office shall be the same as is already provided as to the other Professor of Medicine.

"6thly. The Professor of Clinical Medicine shall have and enjoy the same privileges of every kind as are enjoyed by the other Professors in Medicine, exclusive of any Salary which may have been granted to others.

"7thly. That the said Professor shall have the same remedy as to fees which may be agreed upon between him and the Students who may attend upon his Lectures as is enjoyed by the other Professors in Medicine.

"Lastly the Corporation of Harvard College with the approbation of the Overseers may from time to time make such alterations in and modifications of the foundation as shall in their opinion conduce to the interests of the University.

"Voted that the Chairman of the Corporation be requested to lay the foregoing Law and ordinance before the Honorable and Reverend Board of Overseers for their approbation.

"Voted that the Chairman of the Corporation be requested to lay before the Honorable and Reverend board of Overseers the Votes of the Corporation passed the 13th instant relative to the Medical Professorship and also the vote passed this day relative to the establishment of a Professorship of Clinical Medicine in the University."

At a meeting of the Corporation of Harvard College at the Home of the Chief Justice in Boston August 2, 1810:

"The votes of the Overseers of Harvard College concurring with the corporation respecting the extension of the Medical School to Boston and the establishment of a Clinical Professorship were communicated, together with the Vote of the Overseers of the Poor of the town of Boston permiting the Professors etc. to visit the sick in the Alms House."

"At a meeting of the Corporation on July 25th 1810 James Jackson was unanimously elected Professor of Clinical Medicine in Harvard College." He was inducted into office at a private inauguration in Holden Chapel Nov. 27, 1810.

There was yet one obstacle to be overcome before the Medi-

cal School could be established in Boston. This is shown by the following letter:

"Cambridge, 27 Oct. 1810.

"To the Honorable and Reverend, the Corporation of Harvard College:

"Having petitioned the Corporation to be admitted to the same privileges in the Alms House in Boston granted to the other Professors, and the Corporation having thereupon voted 'that they did not think it expedient to act upon the application until Dr. Waterhouse signified to the Corporation his agreement to conform to the permission of the Corporation and Overseers relating to the extension of the Medical establishment in Boston' I therefore hereby signify my agreement to their act of extending the medical establishment to Boston, and repeat and renew my petition for the same privileges with the other medical Professors, and am with high respect their "Humble Servt.

"BENJAMIN WATERHOUSE
"Professor of Theory and Practice of Physic."

So, as we see, from what has been quoted, the authorities of the Alms House agreed to the new teaching plan. The Alms House "is a spacious well constructed edifice, with kitchens, a chapel, and 48 other apartments. It is governed by the Overseers of the Poor, and is conducted by a Master, with proper assistance. The average number of inhabitants for the two past years is about 350, of whom 130 are State paupers. The subjects of admission are the meritorious poor, unfortunate females, vagrants (who are kept employed) and maniacs. The usual number of sick and infirm is about 50."* It was on Leverett Street. The old or former Alms House was on Park Street.

Warren, Dexter, Jackson and Gorham taught in the Alms House. This privilege came through John Warren, who had been visiting physician there for many years. He was paid

* Appendix to "Progress of Medical Science in the Commonwealth of Massachusetts," Josiah Bartlett, 1810.

for such services, a fact stated in the communication from the Boston Medical Society to the Overseers of the Poor.

The Marine Hospital, established at Charlestown in 1803, was a two-story building, one hundred feet by forty feet. The average number of patients there was about thirty.* Waterhouse was the surgeon in charge in 1808.

These two hospitals, with the Boston Dispensary (incorporated 1801), and the State Prison at Charlestown (erected 1805) offered the only public clinical facilities available at that time.†

It now remained for the College authorities to arrange the various details of compensation, the manner of conferring degrees, etc. Warren and Dexter were invited to the meeting of the Corporation on February 24, 1811, and at a later meeting held March 11, 1811, the following report was accepted:

"Whereas, in the vote of the Corporation passed the 10th of July last, and approved by the Overseers permitting the Professors of the Medical Establishment to give Lectures in the Town of Boston, it was provided that the Professors of Anatomy and Chemistry shall annually deliver a course of Lectures in their respective room in their branches of Science respectively, well adapted to the purpose of instructing the students therein, to such members of the College, at such times and under such circumstances as the Corporation shall prescribe, and without any fee therefor; and this requisition is now equally applicable to the Professor of the Theory and Practice of Medicine, whose branch, on his subsequent application has also been extended to Boston; and whereas accordingly the only compensation to the several professors for the performance of these duties would be the Income of the several Legacies appropriated to the said Professors respectively, that is to say

"The Professor of the Theory and Practice of Medicine would receive annually $497.74

* Appendix to "Progress of Medical Science in the Commonwealth of Massachusetts," Josiah Bartlett, 1810.

† Exclusive of Vaccination and Small-Pox Hospitals.

"The Professor and Adjunct Professor of Anatomy and Surgery, $397.74.

"The Professor and Adjunct Professor of Chemistry and Materia Medica $200.00

"And whereas upon a review of this subject and in attention to the considerations suggested in the memorial of the professors above mentioned, payments thus limited, would be an inadequate compensation to the Professors in some of the branches to be taught and exhibited, therefore voted:—

"1st. That until further ordered the Professors receive compensation for the Lectures required to be delivered at the College as follows, viz.

The Professor of the Theory and Practice of Medicine $500.00

"The Professor and Adjunct Professor of Anatomy & Surgery. $500.00

"The Professor and Adjunct Professor of Chemistry & Materia Medica. $700.00

"2nd. That the Lectures be delivered to the Senior Class at such times as the President in concert with the said Professors respectively shall decide, and that the President be authorized to make such arrangements relative to the exercises of the Senior Class as may be requisite to enable them to attend with advantage the lectures of the Medical Professors.

"3rdly. That the Professor and Adjunct Professor of Chemistry shall also comprehend in their course Lectures on Minerology with illustrations from the Minerological Cabinet, or from such other additional specimens as may be procured; and that for this purpose the custody and arrangements of the Minerological Cabinet be committed to them. The Librarian under their direction and the direction of the President, having such care of the same, as shall be necessary to accommodate Visitors &c, when the said Professor may be absent.

"4thly. That to make up the Sum of $604.52 which the Income from the Legacies already applied to said Professors falls short of the sum of $1700.00, there be assessed on each student of the Senior class ten dollars to be included in their several quarterly Bills, excepting such who may make application for a remission of said assestant from pecuniary inability and whom the President, and the immediate Government shall think entitled to a remission on that account.*

"5thly. That if the Amount of such assistant together with the Income from the Legacies already appropriated and applied to said Professors respectively should not amount to $1700.00 that the deficiency, not exceeding $104.52 annually be made up from the income of the Legacy of Colⁿ. Isaac Royal and charged to the same, and the excess of such deficiency, if any over $104.52 shall be paid from the unapporperated funds of the College.

* Amended June 26, 1811, so as to leave it with the President alone, without action from the immediate government.



"6thly. That the said Professors be at liberty to admit to the Lectures to be delivered at Cambridge any person besides the members of the Senior Class (not under Graduates in the College) and whom the President may approve at such fees as may be mutually agreed between the Professor and the persons so admitted, without being held to account for such fees—Provided that one dollar for each person so admitted be paid to the Steward by the professors respectively on whom they may attend for the use of the College Rooms if a College Room has been used by any such Professor for the delivery of Lectures.

"7thly. That resident Graduates who are not medical Students be permitted to attend the Lectures free of expense.

"Upon the memorial of the Professors of Anatomy and Chemistry respecting Degrees conferred by the University, and consideration of the reason there set forth, Voted,

"That the Degree of Doctor in Medicine shall in future be conferred on the same terms as those on which the degree of Bachelor in Medicine has heretofore been conferred both as to the period of study and the compensation or fee for the degree; and that the Degree of Doctor in Medicine shall be also conferred upon all such persons as have heretofore been admitted to the Degree of Bachelor in Medicine, and that the examination for the medical degrees shall hereafter be held and conducted in such time and manner, as the President with the advice of the Medical Professors shall think proper."

On August 14, 1811, it was voted by the Corporation that the department of medicine in the University be denominated the "Faculty of Medicine."

So a well organized Medical School was at last established (1811), and it has come to be what we now see it. It was planned with the greatest care, and built upon definite lines, but has seen many changes in growth and development.

Six years earlier, in 1805, J. C. Warren, the son, had begun an Anatomical Course at rooms over White's Apothecary shop, at No. 49 Marlborough Street, now that part of Washington Street between School and Summer Streets. As nearly as we can tell, the building was situated on the site of the present 400 Washington Street.* The rooms soon became the

* No picture of this building is known to be extant today.

resort of many physicians of that time, and it was natural that the new medical school should be opened there until it had a building of its own.

So the first official course in the Medical School in Boston began on the first Wednesday in December, 1810, and was announced in the *"Columbian Centinel,"* September 19, 1810, thus:

"MEDICAL LECTURES."

"The lectures in the Medical Institution of Harvard University will be commenced in Boston, on the first Wednesday in December, on:—

"Anatomy and Physiologey. Surgery and Midwifery. By Dr. Warren, Sen. and Dr. Warren, jun.

"Theory and Practice of Physic. By Dr. Waterhouse.

"Chemistry and Materia Medica. By Dr. Dexter and By Dr. Gorham.

"Clinical Medicine. By Dr. Jackson.

"Those who attend the Lectures on Clinical Medicine will have an opportunity of seeing Medical practice in the Hospital Department of the Alms House. Surgical treatment and operations will be exhibited in the same place to the attendants of the Lectures on Anatomy and Surgery by the Professors of these branches.

"The use of the Boylston Medical Library, will be enjoyed by the students.

"Dr. Gorham will give a private Course of Lectures on Chemistry to the gentlemen of Boston, after the conclusion of the Medical Lectures."

The following "Communication" appeared in the Columbian Centinel March 6, 1811:

"Among the various institutions for the promotion of science, and for the increase of the comforts of life, no one has a stronger claim on the favor and support of the public than the Medical School lately established in this town. The improvement of medicine is so immediately interesting to our selfish and benevolent feelings, that it must gratify the thinking part of society to observe growing up among them an institution which promises such important advantages to this science. It would therefore be doing an injustice to the community not publicly to notice the progress and success which has thus far attended this institution. There have been given, during its first term, a course of lectures on the theory and practice of physic; a course on clinical medicine (written *chymical*), rendered particularly instructive by the hospital advantages connected with it; a course on chymistry and materia medica (the possession of a large

and excellent apparatus enabled the professors to give an admirible theoretic and demonstrative view of this science); a course comprising anatomy and physiology, surgery and midwifery. The professors of these important branches, whose skill, ability and uncommon exertions I more particularly witnessed, were attended by about 40 medical students, exclusive of the students of the Cambridge University, and a large number of citizens. Aided by a rich and extensive collection of preparations, they made their anatomical course minute and complete, combining in matter and manner those excellencies which gratify the most sanguine expectations of those whose object was pleasure and general instruction; and of those who sought particular and practical knowledge their lectures on surgery were able demonstrations of all its practical parts; those on midwifery were a demonstrative view of the most approved practice in all the intricate cases of the obstetric art. The chirurgical instruction was particularly valuable, as it embraced all the modern improvements of the art, many of which are not to be found in books, common in this country; as an opportunity was afforded by the hospital of the Almshouse for the inspection of the practice in a variety of diseases, and as several important operations were performed, which were accessable to the student.

"These lectures have concluded for the present season, and we may, without partiality, remark, that they were executed with so much ability, that the school, though in its infancy, exhibited the strength of manhood. The medical students of New England may now congratulate themselves, that they have in their own neighborhood an establishment, which promises them the best means for acquiring a proper medical education, particularly those first principles which are absolutely necessary to enable them to do their duty, as practitioners. Every medical man, who really has at heart the advancement of his professional science, will generously encourage this school. "AN ATTENDANT."

That there was at least one skeptic who did not subscribe to this estimate appears from the following reply published in the Centinel, March 13, 1811:

"REJOINER."

"It must be pleasing to every philanthropic man to hear that the professors of the new medical school in Boston, have executed their respective duties with so much ability, as to give 'the strength of manhood to infancy,' but I see no wisdom in puffing up some of the branches. I wish well to the medical school, but I would hint to some of the younger ones, that your old butchers whose character for fair dealing is established, *never find it needful to blow up their meat before they bring it to market.*

"ANTI-PUFF."

After the death of President Willard, on September 25th, 1804, the Corporation and Overseers were for a time concerned with the election of a President. Eliphalet Pearson, the Professor of Hebrew and other Oriental Languages, and senior member of the Faculty owing to a vacancy in the Hollis Professorship of Divinity, presided at the meetings of the Corporation and acted as President of the College. Pearson used his temporary position selfishly, and for a time succeeded in postponing an election.

On December 11th, 1805, the Hon. Fisher Ames was elected by the Corporation, but declined before the vote was confirmed by the Overseers. The more conspicuous candidates for the vacancy were Pearson and Samuel Webber, Hollis Professor of Mathematics and Natural Philosophy. Pearson finding the majority of the Corporation favorable to Webber, resigned his professorship and his seat in the Corporation, saying, "events during the last year having so deeply affected his mind, beclouded the prospect, spread such a gloom over the University, and compelled him to take such a view of its internal state and external relations, of its radical and constitutional maladies, as to exclude the hope of rendering any essential service to the interests of religion by continuing his relation to it."

The Corporation elected Webber to the Presidency March 3rd, 1806, (concurred in by the Overseers, March 11th), and on March 28th accepted the resignation of Pearson, "though they cannot admit that his views of the situation and prospects of the University are correct, yet they are fully persuaded that they are upright and conscientious, and lament the loss of his able and faithful services."

President Webber died July 17th, 1810, and in August the Corporation elected the Rev. John Thornton Kirkland, President of the College. The progressive, conspicuous, and brilliant administration of President Kirkland (1810-1828) marks an era in the annals of Harvard College. No former president and few succeeding ones exhibited a more marked personality, or were more successful in elevating the standard of education, in widening the scope of Harvard's influence, in establishing modern methods and government, and in developing the University. New laws, new customs, new environments, and a new atmosphere were created by that able and farseeing man. In these advantages the Medical School shared.

Leaving, for the present, a consideration of that important era, let us now consider some of the contemporary medical questions in which Harvard Alumni had a share.

VACCINATION.

CHAPTER XII.

VACCINATION.

Our knowledge of smallpox goes back to the remotest times, and our earliest positive reference to the existence of the disease is that of its occurrence in the Abyssinian army at the siege of Mecca, in 750 A. D. Although referred to by Gaddeshen of England, in the fourteenth century, it was not until the years 1514-18 that it became generally recognized in England. The terrible scourges of the seventeenth century resulting from smallpox are beyond conception in these days.

From the earliest times it was known that one attack of the disease usually protected the individual, and this belief led to the inocculation of healthy individuals with "matter" from those suffering with the disease. We have seen how this custom spread from India through Tripoli, Algeria, Turkey and Asia, and was finally introduced into England by Lady Mary Wortley Montague. While in Constantinople she learned of a practice among the Circassians of artificially producing smallpox at an early age in order that the beauty of the female children might not be marred later by the genuine disease, a disfigurement which would seriously interfere with their selection for the harem.

In another part of this book we have seen how Mather and Boylston introduced inoculation into general use in this country. Notwithstanding the proven value of this process in establishing immunity, it gradually came to be recognized, as

the century advanced, that smallpox was even more prevalent than it had been prior to the introduction of inoculation. The accepted explanation of this is that those who underwent the inoculation selected a time when they were best fortified to withstand the attack, consequently the disease thus transmitted was invariably of a mild character and seldom fatal. This feeling of security fostered carelessness, with the resulting effect that friends and neighbors were exposed to infection which often resulted in a virulent and fatal form of the disease. Thus it was that in the last fifty years of the eighteenth century the death rate in England from smallpox was 97 per one thousand deaths, i. e., one in every ten deaths from all causes at all ages was due to smallpox. In the last twenty-five years of the same century, thirty-two and a half per cent. of all cases of smallpox were fatal. It has been estimated that sixty million inhabitants died in Europe from smallpox during the eighteenth century, also that one-tenth of all the deaths of the human race were due to this same cause at the time when Jenner was making his observations. Another writer says that smallpox destroyed or disfigured a fourth part of mankind.

It had been recognized that milkmaids of Holstein and of dairy districts in England seemed to enjoy a special immunity from the disease, and, even before Jenner's experiments, that there was a definite connection between this exemption and the occurrence of cow-pox. The best authentic cases* are those of a Dorsetshire farmer who in 1774 inoculated his wife and two sons; and of a schoolmaster (Peter Plett) who in

* "The Century of Vaccination," by J. G. Adami, M. D., M. R. C. S.—Montreal Medical Journal, August, 1896.

1791 inoculated three children. Both of these men used virus taken directly from the cow. The schoolmaster used a pocket knife with which he made a series of cuts upon the back of the hand between the thumb and forefinger. Proof of the value of this measure came three years later, when all the children of his school except those three whom he had so crudely inoculated contracted smallpox.

These early beginnings went unnoticed until Jenner's "Inquiry," and it can safely be asserted that to him unquestionably belongs the honor connected with the establishment of vaccination.

Edward Jenner was born in 1749. He was the son of the Rev. Stephen Jenner, Vicar of Berkeley, Gloucestershire. The son being of a rather weak constitution, his early education was confined to home teaching and nearby schools. His medical studies began as apprentice to Daniel Ludlow, a surgeon of Sudbury, but in 1770 he became a pupil of John Hunter. With Hunter, Jenner was a great favorite, and some say that an offer of partnership was made by Hunter to his pupil. However that may be, Jenner returned to his native town in 1773, and devoted himself to study. One of his publications, "Natural History of the Cuckoo," gained for him in 1789 the "F. R. S." With a mind more given to the pursuit of medical science than to the cultivation of surgical practice, he abandoned the latter, and in 1792 was graduated in medicine at the University of St. Andrew. He discovered a process of making pure tartar emetic, and is also said to have been the first to discover the true cause of *Angina pectoris*. His research upon the nature of tubercles in the lungs gives some idea of the trend of his mind.

Never forgetting the traditions of his neighborhood, Jenner gradually collected a number of cases tested by variolation. At length, in 1796, cowpox had become endemic near Berkeley, and a milkmaid, Sarah Nelmes, became infected in one hand which had accidentally been scratched by a thorn. Here was Jenner's opportunity—a genuine case—so, taking Edmund Phipps, a boy who had not suffered from smallpox, he vaccinated the lad with lymph from the vescicles of cowpox on the hand of the milkmaid. This was on May 14th, 1796, a memorable date. After a typical course, the boy was inoculated with variolus matter on July 1st. This was repeated several months later, but without effect other than a slight and transient inflammation. Jenner, being unwilling to vaccinate from arm to arm, and no cases of cowpox presenting themselves, the experiment was interrupted until March, 1798. Then he repeated the experiment of May, 1796, and also carried the vaccination through a series of five individuals. From this he demonstrated that the vaccine lymph retained the property of rendering the person so treated insusceptible to the contagion of variolus pus.

These were the cases published in 1798, entitled "An Inquiry into the Cause and Effect of the Variolae Vaccinae, a Disease Discovered in Some of the Western Counties of England, Particularly Gloucestershire,—and Known by the Name of the Cowpox," which created such a sensation at that time.

Of course Jenner met with difficulties and contradictions which "for a while damped but did not extinguish my ardour." Many believed he claimed that a single vaccination immunized for life, but his own words are, "Duly and efficiently performed, it will protect the constitution from subsequent at-

tacks of smallpox as much as that disease itself will. I never expected that it would do more, and it will not, I believe, do less."

Edward Jenner received the LL. D. from Harvard University in 1803. His death occurred on January 26th, 1823.

It is unnecessary to recite here the results of Jenner's great gift to humanity. Its application was immediately undertaken by leaders of medical thought, and it is our privilege to be able to record with propriety in these pages the conspicuous and honorable distinction our Alma Mater occupies in this great blessing. As early as March 16th, 1799, Benjamin Waterhouse published in the "Columbian Centinel," Boston, the first account given in this country of Jenner's recent discovery. It is called

"SOMETHING CURIOUS IN THE MEDICAL LINE.

"Every body has heard of those distempers accompanied with pocks or pustules, *called* the *Small pox*, the *chicken pox* or if you like the term better, the *cow-small pox:* or to express it in technical language, the *variola vaccinae.* There is, however, such a disease which has been noticed here and there in several parts of *England*, more particularly in *Gloucestershire*, for fifty or sixty years past, but has never been an object of medical inquiry until very lately. As we are too often misled by *names*, it is not amiss to premise that there is nothing in the origen, nature or symptoms of this disorder anyhow resembling that incident to the human race, denominated *lues.*

"This *Variola vaccinae* or *cow pox*, is very readily communicated to those who milk cows infected with it. This malady appears first on the teats of the cow in the form of irregular pustules or pock. They are commonly of a palish blue, somewhat approaching to livid, and surrounded by an erysipelatious inflammation, resembling the St. Anthony's fire. These pustules, unless timely remedied, degenerate into those ragged ulcers known by the surgeons under the name of phagedenic. The cows soon become sick, and the secretion of milk lessened, but I never heard of one dying of it. Those who milk cows thus affected, seldom or never fail catching the distemper, *if there be cracks, wounds or abrasions in the hands.* When infected, there appear on different parts of the hands and wrists, inflamed spots, having the appearance of blisters, produced by

burns. These run quickly on to suppuration. These superficial suppurations have a circular form with their edges more elevated than their centres, very much resembling a certain stage of small pox. These depressed pustules or pocks, are of a color approaching to blue. Absorption now takes place, and a soreness and sometimes a tumor appear in the arm-pits. Then the arterial system becomes affected, the pulse is quickened, and shivering with a general lassitude and pains in the back and limbs supervene, and these symptoms are not unfrequently accompanied with vomiting. There is, too, a pain in the head and in some people a dilirium. These symptoms varying in their degrees and violence, generally continue from one day to three or four, leaving ulcerated sores about the hands resembling those on the cow's teats, from whence they spring. The lips, nostrils and eyelids are sometimes affected with force, but these evidently arise from their being rubbed or scratched with the patient's infected fingers. This is the common course of the disease with the human species. *No person was ever known to die of this distemper.* But what makes this newly-discovered disease so very curious, and so extremely important, is that every person thus affected, is Ever After Secured From The Ordinary Small Pox, *let him be ever so much exposed to the effluvium of it, or let ever so much ripe matter be inserted into the skin by inoculation.* In other words,—a person who has undergone the local disease and *specific fever* occasioned by the Cow pox infection, is *thereby rendered ever after unsusceptable of the small pox.* It is worthy remark that the infection of the Cow pox can be conveyed to the human species by the ordinary mode of inoculation. And it is observed, that there is no difference in the effects of the matter taken from the cow, or from the matter generated successively in the second, third, fourth or fifth human creature.

"Such are the outlines of a mild disease, the knowledge of which may lead to consequences of the utmost importance to the whole human race, no less indeed than that of superceding if not extinguishing that terrible scourge, the Small Pox.

"Dr. Edward Jenner is the physician in *England* who has collected and arranged a series of facts and experiments respecting the disease called there the cow pox——His short work is commented on by Dr. George Pearson, physician to St. George hospital, *London.*

"This imperfect sketch is thrown into the news-paper at this time with a view of exciting the attention of our dairy farmers to such a distemper among their cows. It may also be gratifying to some of the faculty of medicine who, it is presumed, are not yet generally informed of an epizootic disease, capable of being communicated from the brute to the human kind, and which, when communicated, is *a certain security against the small pox.* The public anxiety has been roused of late to search after the cause of a destructive *fever.* Their attention has been directed merely to *effuvia, vapoures* or *gasses,* while they may here see a



disease, the *nearest a-kin* to the small pox of any yet known, which is never communicated by effluvia or medium of the air. It is highly probable that some of the most distressing distempers which affect mankind have an *animal* origin, and time may prove that the small pox, whooping cough, and one kind of quinsy, have like the hyrophobia, a similar source.

"B. W."

"Cambridge, March 12, 1799."

The first vaccination in America was performed in Boston, on July 8th, 1800, by Waterhouse. He vaccinated seven members of his household and six of these proved successful cases. Shortly afterwards three of the children were sent to the smallpox hospital, and one was inoculated with smallpox. None of them contracted the disease. The details of this heroic act have been fully given in previous pages of this book.

In September, 1800, James Jackson (H. U. 1796) returned to Boston after completing his medical course in Europe, and immediately became identified with the vaccination movement which he had studied under Woodville in London. The vaccine matter which Jackson brought with him from London had lost its effectiveness, a misfortune for Jackson, which was met by Manning of Ipswich, who supplied him with some fresh virus. Young Jackson was keenly alive to the advantages likely to result from prominence in a public movement destined to become popular. So, writing to his friend and companion, John C. Warren, then in London, for a fresh supply of vaccine matter, he set about taking advantage of the opportunities offered, and soon became one of the physicians most prominently identified with the introduction of vaccination. Thus it was that, in one of the greatest blessings to mankind, two physicians intimately associated with the history of the Harvard Medical School stand out prominently.

The honor and renown which the older of these two men brought to our Alma Mater by the introduction and advocacy of this new discovery was further increased and extended by the younger in his long, useful and notable career.

The vaccination "craze" spread rapidly in Massachusetts, as well as throughout Virginia, Pennsylvania and New York. Special hospitals were established for vaccinating purposes. The town of Milton, Massachusetts, offered the benefits of vaccination to its people; the first town in the country to act as a corporate body in the matter. Soon after the General Court* authorized the respective towns in the State to appoint committees to superintend and to raise money to defray the expenses of vaccination.

The new discovery had its enemies—many and venomous. The system was opposed by many physicians, and was denounced from many pulpits with great bitterness, as an attempt to bestialize the race. An epidemic of smallpox at Marblehead about this time caused much excitement. A variolus patient being mistaken for a vaccine patient was the cause of the outbreak. A committee from the Massachusetts Medical Society was appointed to visit that place and investigate the facts. On account of a misunderstanding between Waterhouse, who was one of the committee, and the Society, the controversy was carried into the public press. There were no medical journals at that date. In June, 1801, Jackson endeavored to have the Board of Health of Boston undertake a series of experiments to prove the efficacy of cowpox as a preventive against smallpox, but public opinion was not yet

* See Act, March 10th, 1810.

sufficiently crystallized to endorse any measure of that nature. In the following year, however, Waterhouse repeated the application made by Jackson, and accompanied it with a history of the disease, as well as the evidence of its efficacy which had been accumulated by medical societies in Massachusetts, New York and elsewhere. This memorial is well worth the reading:

"The Memorial of Benjamin Waterhouse, M. D. Professor of the Theory and Practice of Physic in the University of Cambridge,

"To The Board of Health in Boston.

"Gentlemen,

"No one can doubt the propriety of my addressing you on the subject of *the new inoculation*, who considers, that you are placed by law, as so many guardians of our lives, health, and safety. The authority, which has made it your duty to put in force the laws and rules, best calculated against the introduction of infection from abroad; and to obviate the causes of contagion at home, has made it my duty to investigate and teach the principles, on which such laws are founded. Under this idea, it is probable, your board, or the individuals of it, applied for my opinion, and made use of it, when the quarantine law was before the Legislature, From recollection of that circumstance, I am induced, at this time, to address you, not as a private practitioner, but as *the public teacher of the practice of physic in this Commonwealth;* and am willing to annex to the assertions in this memorial the implied responsibility of my official station; for it has been, agreeably to an early declaration,* under a serious impression of the duty imposed on me by the medical institution of this University, that I have laboured incessantly, for four years past, in the investigation and diffusion of the most important medical discovery, ever made since the world began; it being no less than that of exterminating the most loathsome and widely wasting pestilance, that Providence ever permitted to afflict the human race.

"Being made acquainted, at a very early period, with this extraordinary discovery, I felt it my duty, as a teacher of medicine, to collect all the facts for the information of those who attended my public lectures. Having imported the disease itself into America, I feel, if possible a still stronger obligation to acquaint the public with every step I took in diffusing it, even before it passed the limits of my own family. I therefore

*See page 18 of a pamphlet entitled "A prospect of exterminating the Small-pox."

published all my proceedings from time to time in the news-paper, in a style so simple as to require no other preparation, than common sense and an unprejudiced mind. But as they have never yet been collected together in one book, it may be of some use, on this particular occasion, to throw together the leading particulars, and lay them in order before the public, through the respectable medium of the *Boston Board of Health*. For really, gentlemen, (seeing vaccination is marching triumphantly over the globe, and PRESIDENTS, EMPERORS, KINGS, CONSULS, and PARLIAMENTS,* are giving it public countenance and support) it is time for BOSTON, distinguished as '*the headquarters of good principles*,' to consider whether they will choose to be the last in adopting a practice, which has been followed by France, Italy, Spain, Germany, Prussia, and Constantinople, and even received with warmth in the cold regions of Russia and Norway?

"It has been to me a humiliating reflection that the very plans I have offered for a *Vaccine Institution* in Boston, for inoculating the poor *gratis*, and which have been received with a chilling apathy, and a repellant suspicion, have, on being transmitted to some of the middle and southern states, been adopted with alacrity. From these places I am continually receiving letters, replete with the most grateful expressions for transmitting them the matter, and directions for carrying on this new inoculation.

"I pass from these prefatory remarks to

"A Concise History of the Kine-Pock Inoculation.

"THERE is a mild distemper, which has been noticed here and there among the herds of kine, in several parts of England, time immemorial. This disorder appears first on the teats and udder of the cows, in the form of irregular pustules, or pocks, of a palish blue colour; and those who milk them, when thus affected, seldom fail of catching the disease.

"This distemper has existed so long in Ireland, as to be known there by a *Celtic* name, viz. '*Shinnaugh*,' which word is found, on dissection to mean *a cow's teat*. This carries the knowledge of this epizootic disorder back full 500 years.

"There are innumerable instances of persons in Britain and Ireland, who caught the malady by milking cows in their youth, and who have passed through a long life, and have been repeatedly exposed to the contagion of the small-pox without being infected; so with a knowledge of this disease, has ever been connected an opinion, that a person once affected with it, is ever after secure from the small-pox.†

*The Parliament of England has given Dr. Jenner thirty thousand pounds sterling for the discovery.

†The absurd doctrine that the smallpox would secure a person only a short time, was urged *eighty* years ago to prevent Dr. Boylston from advancing with his inoculation in Boston.

"EDWARD JENNER of Berkeley, a town in the vale of Gloucestershire in England, a learned, skilful, and accomplished physician, was the first who took this knowledge, so long floating on the breath of the vulgar, and impressed upon it the stable form of science. He it was, that with a Franklinian sagacity first transferred it from the mild, healthy, and invaluable animal, the cow, to the human species; and by a series of experiments, demonstrated, that it is *a perfect security against that loathsome disease, which has destroyed more than* FORTY MILLIONS *of people every century;* whereby he has been the means of preserving more lives than ever fell to the lot of any other human being. This extraordinary fact came forth from his hands in so finished a form, that were all the other writings on the cow or kine-pock, but Jenner's destroyed, posterity might have a clear and perfect idea of this benign remedy, and its salutiferous consequences. For Dr. Jenner has demonstrated,

"I. That the cows are liable to a pustular disease, which was popularly called in England the *cow-pox.*

"II. That the human species might be inoculated with the *limpid* fluid produced in the pustules of this cow-pox.

"III. That, in consequence of such inoculation, an action commences, which makes such a change in the constitution, of the inoculated persons, as to render it impossible for them to be ever infected with the small-pox.

"IV. That the disease, induced by inoculation with the cow-pox, is of a slight kind, wholly free from danger, seldom attended with fever, and never with suppurating eruptions, like those of the small-pox.

"V. That if, by any accident, too much general disturbance is excited in the constitution by inoculating for the cow-pox, it is easy, by a proper application to the inoculated part, to regulate, or suppress such disturbance.

"VI. That one child in a family might be inoculated for the cow-pox, without the hazard of infecting any other person in the family; the cow-pox not being a contagious disease. And none of the facts or observations, published by Dr. Jenner, have been disproved, or refuted.*

"This vicarious disease retains in England its vulgar name of *Cow pox.* It is called *la vaccine* in France; *vajuolo vaccino* in Italy; *vaccina* in Spain, Germany, and the Northern Nations; and in the United States of America, the Kine-Pock.†

"That I produced the *same* diseases in America, is confirmed by virus taken from my patients here, and sent to England, producing the *same* disease there. We have, besides, demonstrated the *identity* of the dis-

* Dr. Denman.

† Instead of the plural pox, because it has but *one* pustule. In some parts of America cowpock is synonymous with *spurious*-pock; while by *kine-pock* they mean the *genuine* infection. Hence the Importance of adhering to the term Kine-Pock.

respect to the eye by means of pictures of the kine-pock as all its stages, printed in England under the direction of Jenner himself, which exquisite representations ascertain the identity of the local disease beyond the faintest shade of ambiguity. In like manner, the depicted aberrations prove to an exact description of the impostor that pestered us in the autumn of 1800.

"That this cow or kine-pox will secure the human constitution from the contagion of the small-pox is certainly as safe as that iron will secure a building from the effects of lightning, as one who has paid due attention to the subject, now dwells in America. But as lightning rods may be so injudiciously placed, as not to protect the building from injury, as the kine-pock inoculation may be so unskillfully conducted, as not to secure the person from the contagion of the small-pox.

"When a building guarded by rods of iron, is struck with lightning, we conclude they were not adjusted according to the rules laid down by Franklin; they being founded on a law of nature relative to the electric fluid and a metallic rod. And when we hear of a person having the small pox, after being supposed to have had the kine-pock, we are as certain that the inoculation was not conducted according to the rules laid down by Jenner; they being, in like manner, founded on a law of nature respecting the vaccine virus and the human subject. Whenever, therefore, we meet with adverse accidents in applying the Franklinian, or the Jennerian discovery to practice, we must look for the cause in erring man, and not in UNERRING NATURE. It is the business, then, of the philosopher and the physician, to enquire into the causes of these aberrations.

"Assuming it then, as a fact (and the learned of all nations have admitted it), that Dr. Jenner has demonstrated *a new law of nature*, respecting the prophylactic, or preventive power of the kine-pock in the human system; we presume that every one, who dreads the small-pox, would gladly shelter himself behind the *Aegis* of Jenner, from its too fatal effects, *had he but a cloudless view of the whole business;* and the ultimate object of this address, gentlemen, is a PLAN to help your fellow citizens to such a view of it: and thus to relieve them from their present state of doubt and uncertainty, respecting a matter of more importance to your commercial town, than any that ever exercised its deliberations, since our venerable forefathers first landed on your renowned peninsula.

"In the present unsettled state of this practice, the inhabitants of Boston know not what to adopt, or what to reject. Although I hold up to you, with *confidence*, a sure, safe, and effectual method of forever securing your offspring from the worst of maladies, yet I wish not that you should patronize, much less adopt it, without A PUBLIC EXPERIMENT PERFORMED UNDER YOUR OWN INSPECTION.

"The only question now remaining on the minds of those who are well wishers to the new inoculation is, *why has this operation ever failed? Why have not the true prophylactic effects followed every application of the vaccine virus to the abraded skin?* The full discussion of these questions is reserved for another place. Suffice it to say for the present, that I very early warned the public against *spurious* cases, or an appearance on the arm not possessing the characteristic marks of the genuine pustule, and cautioned my readers against certain occurrences, which, if not critically attended to, would bring the inoculation of this recently imported distemper into a *temporary* disrepute. But my warnings were misconceived, and misrepresented; so that at length, I ceased from any further expressions of caution, and endeavored to content myself with predicting the consequences, that would ensue from aiming to walk straight, in an unfrequented path, blindfold.

"A public experiment by some learned body, or association of physicians, or some regularly constituted body, as the board of health, is requisite to infuse confidence into the minds of the people. For an individual, however warmly disposed to promote the good of his fellow creatures, can do but little in such a peculiar business. This induced me to address the *Boston Board of Health*—to request them to take this new mode of preventing the small-pox infection into their serious consideration, as a matter of great importance to the community, and coming with peculiar propriety under their cognizance.

"The writer of this has, for more than three years, devoted his undivided attention to maturing, and bringing forward this mode of exterminating an horrid disease. He has, by suggesting, but not obtruding on the public, held up to their view A MILD AND EASY SUBSTITUTE. In the same spirit he would now propose to the *Board of Health*, as a principal means of effecting this end, that they would take some step towards forming a committee, to inquire, 1st, *Whether there be sufficient evidence of the efficacy of the kine-pock to justify the expense of a public experiment;* and ample documents are here transmitted to assist you in this inquiry. If this is found to be the case, to establish, 2dly, a COMMITTEE OF PHYSICIANS *to conduct the experiment.* To ensure universal satisfaction, it is suggested, that the committee should consist of *six of the oldest physicians* of Boston; men, who from their age and character, are rather retiring from extensive business, than candidates for it; and that to these should be invited the physician of the small-pox hospital at Brookline. I would further ask leave to propose, that to these medical characters should be associated as many *clergymen*, whose information, habits of inquiry, and benevolent views, would complete a committee, every way adequate to the important task, of forming, and laying, in conjunction with the board of health before the public, a correct and unbiassed report of facts.

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instances, full as striking? Is not a *peppercorn* the foundation of the power, glory, and riches of India? as is the *acorn* of that renowned nation whence we of New England sprang.* 'A truth, constantly found,' says Bruce, 'in the disposition of all things in the universe, is, that God makes us of the *smallest* means and causes, to operate the *greatest* and most powerful effects.'

"Let us then no longer be told of the *contemptible origin* of that benign remedy, which PROVIDENCE has destined for the preservation of our offspring from a loathsome and destructive plague. The earth maintaines not a more clean, placid, healthy, and useful animal than the Cow. She is peculiarly the poor man's riches and support. From her is drawn, night and morning, the food for his ruddy children; while the more concentrated part of her healthy juices is sold to the rich, in the form of cream, butter, and cheese. It would indeed be uncomfortable to live without this animal, as she supplies man with more conveniences, and at a less expense, than any other quadruped in the creation. When we have exhausted her by age, her flesh serves for our nourishment, while every part of her has its particular uses in commerce and medicine. On these accounts she is an useful, though invisible wheel in the great machine of state.† Hence we cease to wonder that this useful domestic animal was consecrated among ancient nations, as an object of worship.

"You will readily see, gentlemen, that this memorial, though meant to carry every mark of respect, is not made in the style of cringing solicitation, like a man exclusively interested in the event, and actuated by personal motives merely; but of a man conscious of his duty, and zealous in promoting a public benefit every way worthy your patronage: a benefit of more real value to the town of BOSTON, *than all the riches contained within its limits.* You will also remember, that the main object of this address is not to persuade you blindly to patronize the new inoculation, *but to induce you to cause a rigid inquiry to be made into the truth of my assertions, and to have them subjected to the test of a* PUBLIC EX-

* The Board of Health was then composed principally of commercial men and sea captins retired from business. Hence the reason for selecting instances in the commercial and nautical line. The president at this time was Benjamin Russell, editor of the "Centinel," in whose paper Dr. Waterhouse's first publication on the kine-pock appeared. The cause of vaccination owes much to Mr. Russell, whose zeal in its promotion has never slackened.

† The word *wealth* was derived from this species of animals, viz. *pecuniary*, from pecus. Hence it was that the first money ever coined in the world had a *cow* stamped upon it, as a portable representative of riches.

PERIMENT *by a set of men, whose knowledge, age, and virtues, will create confidence, and inspire satisfaction.**

"BENJAMIN WATERHOUSE.

"Cambridge, May 31, 1802."

Waterhouse succeeded in convincing the Board of Health of the wisdom of some such action and the result is set forth in the following report, taken from a photographic reproduction in the "Boston Medical and Surgical Journal, October 17, 1901:

REPORT OF THE BOARD OF HEALTH.

The Board of Health for the town of *Boston*, are happy to have it in their power, this day, to announce to their fellow-citizens the result of one of the most complete experiments which perhaps has ever been made, to prove the efficacy of the *Cow-Pox*, as a preventive against the *Small-Pox;* and while they take the liberty to congratulate the public on this important discovery, they do earnestly recommend its introduction generally, and are confident that it will be the means of preserving the lives and adding to the happiness of millions.

The utmost care has been taken, during the experiments; and a detailed statement of facts are subjoined, for the gratification of every enquirer.

In June, 1801, Dr. JACKSON addressed a letter to the Board of Health, requesting their countenance in certain experiments which he contemplated making, to prove the efficacy of the Cow-Pox, as a preventive against the Small-Pox; to which application the avocations of the Board would not permit that attention which the plan proposed by Dr. JACKSON required.

In June, 1802, Dr. WATERHOUSE made a similar application, accompanied with a very minute history of that disorder, from himself, and also various documents in proof of its utility, from Societies in *New York* and elsewhere, who had associated for the purpose of making experiments similar to those proposed to be made by Dr. W. by which it appeared, that the public in those places, were deriving incalculable benefits by a pretty general inoculation. About this time the Small-Pox was raging in the family of Mr. HOLDEN, *Fifth-Street* and three persons out of five, under the care of the Board of Health, had died.—The Cow-pox had obtained much credit.

* That is a committee of six of the oldest physicians, and six of the oldest clergymen in Boston, together with Dr. Aspinwall.

The Board of Health, deeply affected with the fatal ravages of the Small-pox, in the family before mentioned, and viewing their Institution as founded, under GOD, for the preservation of the health of their fellow-citizens; and believing, as they did, that this mild and safe disorder, "*the Cow-Pox*," might be substituted for that fatal and distressing one, the Small-pox, so that if generally adopted, completely to annihilate and blot it from the catalogue of human woes;—determined, under the influence of these considerations, to prove by experiments, to be made under their immediate observation, whether their faith in the efficacy of the Cow-pox was well founded or not.

With this view, the plan of the experiments proposed were published in the newspapers, for the consideration of their fellow citizens. The Secretary of the Board was also directed, in their name, to desire the assistance of Doctors LLOYD, DANFORTH, RAND, JEFFRIES, WARREN, JARVIS, and WATERHOUSE, who, agreeably to the invitation of the Board, met them at the Health-Office.—Various impediments presented themselves in carrying into effect the plan as published. It was alleged that the distance of *Rainsford's-Island* from town, would prevent the attendance of the gentlemen concerned, as often as would be requisite; and to make them in town, it would be necessary to have the permission of the town, in town-meeting, it being contrary to law to inoculate with the Small-pox without it. It was therefore determined to apply for this privilege; and the town being assembled for that purpose, it was objected to, on the grounds that it would alarm the country, and injure the trade of the town.—After much debate, it was voted by the town—"That the Board have power to make the experiments proposed, without the limits of the town; and to take up suitable buildings, &c. for that purpose." It was with much difficulty a place could be obtained, comporting with the vote of the town. But started in the pursuit, the object, the happiness of mankind, the Board was determined that no difficulties which perseverance could surmount, should divert them from their purpose.

At length Mr. WILLIAMS gave permission to erect a small building on *Noddle's Island*, and to make the proposed experiments there. Thus provided, on the 16th day of August, nineteen children, viz.

DANIEL SCOTT, *Chambers-Street.*
ALMARIN CLARKE, *Cornhill.*
JOHN SILSBY, *Prince-Street.*
OZIAS GOODWIN,
GEO. GOODWIN,
SAMUEL WATTS, *Charter-Street.*
SAMUEL RICHIE,
ROBERT WILLIAMS,
HENRY WILLIAMS, *Cole Lane.*
REUBEN LORING, *Willson's Lane.*

THOMAS TRUMAN, E. L. TRUMAN, JOHN WYER, } *Dogget's Alley.*
SETH KING, GEORGE FOBES, } *Market-Square.*
WILLIAM AUSTIN, JOHN HARRIS, } *Fifth-Street.*
THOMAS SPEAR, *Friends-Street.*
WM. GREENE, *Hanover-Street,*

Were inoculated with the Cow-pox, at the Health-Office, in presence of the Board, and of a number of gentlemen invited. The physicians who attended were Drs. *Lloyd, Rand, Jeffries, Warren, Waterhouse, Welsh, J. C. Howard,* and *T. Danforth;* and the children went through the disorder to the satisfaction of the gentlemen physicians, and of this Board.

Fresh Small-pox matter being obtained, through the politeness of Dr. WEEKS, the proprietor of the Small-pox Hospital at *Falmouth*—on the 9th of November, twelve of the children before named, together with *George Bartlett,* son of Dr. *Bartlett,* of *Charlestown,* who had the Cow-pox two years since, were inoculated at the Hospital erected on *Noddle's Island,* with the Small-pox, from the matter obtained from Dr. *Weeks*—and at the same time two children of Mr. *Christopher Clark,* of *Hinchman's Lane,* viz. *Thomas* and *John,* who had never had either the Cow-pox or Small-pox, were also inoculated with the latter; and in the proper time the arms (of the two *Clarks*) became inflamed—the symptomatic fever, and usual appearances attending the Small-pox, appeared—and finally pustules to the amount of about 500 on one, and 150 on the other, put forth and matterated, as has been invariably the case in all instances of the small-pox within our knowledge. From these two children, thus affected with the Small-pox, fresh matter was taken, and the thirteen children before named, who were totally unaffected with the first inoculation with Small-pox, were again inoculated on the 21st day of November; and the other seven children, who had the Cow-pox as first mentioned, were also inoculated with fresh matter from the *Clarks;* and the whole remained together in the same house, in the same room, and often in the same beds, without producing the least appearance of the Small-pox, either by uncommon soreness of the arm, head-ach, the least degree of fever or pustules—and this we certify to the public, having daily visited the Hospital ourselves, and made the most critical observations and inquiries, which are confirmed by the report of the physicians who attended the experiments (hereto annexed) and therefore are confident in affirming, That the Cow-pox is a complete preventive against all the effects of the Small-pox upon the human system.

THE PHYSICIANS' REPORT.

WITH a view of ascertaining the efficacy of the Cow-pox in preventing

the Small-pox, and of diffusing through this country the knowledge of such facts as might be established by a course of experiments instituted for the purpose, and thereby removing any prejudices, which might possess the public mind on the subject, the Board of Health of the town of *Boston*, in the course of the last Summer, came to a determination to invite a number of Physicians to cooperate with them on this important design; and with a liberality becoming enlightened citizens, erected a Hospital on *Noddle's Island*, for carrying it into execution.—Accordingly, on the 16th of August last, nineteen boys, whose names are subjoined, were inoculated for the Cow pox at the office, and in presence of the above-mentioned Board, with fresh, transparent Cow-pox matter, taken from the arms of a number of patients then under this disease. These all received and passed through the disease to the complete satisfaction of every person present, conversant with the disease.

On the 9th of November, twelve of the above children, together with one other, GEORGE BARTLETT by name, who had passed through the Cow-pox two years before, were inoculated for the Small-Pox on *Noddle's-Island*, with matter taken from a Small-pox patient in the most infectious stage of that disease. The arms of these lads became inflamed at the incisions, in proportion to the various irritability of their habits, but not to a degree greater than what any other foreign, virulent matter would have produced. The Small-pox matter excited no general indisposition whatever, through the whole progress of the experiments, though the children took no medicines, but were indulged in their usual modes of living and exercise; and were all lodged promiscuously in one room.

At the same time and place, in order to prove the activity of the Small-pox matter, which had been used, two lads, who had never had either the Small-pox or Cow-pox, were inoculated from the same matter. At the usual time, the arms of these two patients exhibited the true appearance of the Small-pox. A severe eruptive fever ensued, and produced a plenteous crop of Small-pox pustules, amounting by estimation, to more than five hundred in one, and two hundred in the other.

When these pustules were at the highest state of infection, the thirteen children before mentioned were inoculated a second time, with recent matter, taken from the pustules, which said matter was likewise inserted into the arms of the seven other children, who were absent at the first inoculation.——They were all exposed, most of them for twenty days, to infection, by being in the same room with the two boys, who had the Small-pox, so that, if susceptible of this disease, they must inevitably have received it, if not by inoculation, in the natural way.

Each of the children was examined by the Subscribers, who were individually convinced from the inspection of their arms, their perfect state of health and exemption from every kind of eruption on their bodies, that the Cow-pox prevented their taking the Small-pox, and they do therefore

consider the result of the experiment as satisfactory evidence, that the *Cow-pox is a complete security against the Small-pox.*

JAMES LLOYD.
SAMUEL DANFORTH.
ISAAC RAND.
JOHN JEFFRIES.
JOHN WARREN.
THOMAS WELSH.
BENJAMIN WATERHOUSE.
JOSIAH BARTLETT.
JOHN FLEET, JUN.
JOHN C. HOWARD.
THOMAS DANFORTH.

Charlestown, December 15, 1802.

This may certify, that my son, GEORGE BARTLETT, at the age of eight years, was inoculated for the Cow-pox, on the 11th day of November, 1800; that the appearance of his arm, and the symptoms, so fully corresponded with the plates and publications I had then seen, as to convince me, and others of my medical friends, that he had the *disease.*

JOSIAH BARTLETT,
Fellow of the Mass. Med. Society.

To the President and Members of the Board of Health, Boston.

Boston, Dec. 8th, 1802.

We, SUSANNA TRUMAN and LUCY LEARNED, nurses attending on the experiments corroboratnig the efficacy of the Cow-pox—do certify that there was not the least sickness or appearance of Small-pox among any of the children who were subjects of the same, during their stay at *Noddle's-Island,* excepting the two boys, THOMAS and JOHN CLARKE, who had never had the Cow-pox, and were inoculated for the Small-pox, with a view to render the experiment more complete.

SUSANNA TRUMAN.
LUCY LEARNED.

Health-Office, Boston, Dec. 16, 1802.
Published by order of the Board of Health.
ISAIAH DOANE, *President.*
R. GARDNER, *Secretary.*

All the signers of the above report were graduated from Harvard.

It is needless to follow the question of vaccination with its varied oppositions, at times serious, but more often amusing. Some idea of the extent of the interest manifested in the adop-

tion and promotion of this measure may be gleaned from the fact that no less a personage than the Chief Executive of the United States has been referred to in the literature upon the subject as "Jefferson the Vaccinator." The following letter from Thomas Jefferson to Benjamin Waterhouse was the latter's greatest solace:

MONTICELLO, October 13, 15.

"Dear Sir:

"I was hightly gratified with the receipt of your letter of Sept. 1 by Genl, and Mrs, Dearborne, and by the evidence it furnished me of your bearing up with firmness and perseverance against the persecutions of your enimies, religious, political and professional. These last I suppose have not yet forgiven you the introduction of vaccination, and annihilation of the great variolous field of profit to them; and none of them pardon the proof you have established that the condition of man may be ameliorated if not *infinitely*, as enthusiasm alone pretends, yet *indefinitely*, as bigots alone can doubt, in lieu of these enmities you have the blessings of all the friends of human happiness, for this great peril from which they are rescued."

So much confusion and uncertainty resulted from the numerous claims and reports as to the result of the new method, that the Massachusetts Medical Society appointed a committee thoroughly to investigate the whole subject. This committee consisted of the four Professors in the Medical School —John Warren, Aaron Dexter, James Jackson and John C. Warren. A long and very concise report was presented* by them at a meeting of the Society, June 1, 1808, and the report covered much of the ground already shown in these pages.

The conclusions of the Committee are interesting:

"First—That in the opinion of the society persons who undergo the cow-pock are thereby rendered as incapable of being affected by the virus of smallpox, as if they had undergone the latter disease.

"Second—That it is to be feared that in the early and even in some of

* Massachusetts Medical Society Communications, vol. I, Appendix.

the late practice of inoculating for the cowpock, the disease may not have been produced in the most perfect manner, and particularly in cases, when the inoculators have not been well instructed in this practice, nor few accustomed to observe the appearance of cutaneous diseases,

"Third—That the most perfect and absolute security is to be derived from subsequent inoculation; and in all cases in which the operation was performed before inoculators had sufficient experience on this subject, as in the year 1800, 1801 and 1802, it is indespensably necessary to ascertain the security of this test.

"Fourth—That it be and hereby is recommended by this Society that all persons who have been vaccinated, especially at the period alluded to above, call on those who inoculated them to perform a second inoculation; for which service the Fellows of this Society will not charge any additional fee."

The above resolutions were published in the newspapers of the day, and practically ended the uncertainties felt concerning the process of vaccination.

NATHAN SMITH.





NATHAN SMITH.

M. B. 1790; M. D. 1811.

(From Yale Medical Journal.)

CHAPTER XIII.

NATHAN SMITH.—EMINENT ALUMNUS.

The first question which naturally suggests itself to the student of history in his selection of individuals worthy of being classified as "eminent" is, why does this man merit such distinction among his fellows? To this question there are many answers. If we consider the duties, the cares, the sacrifices, the responsibilities, the inadequate recompense, the sufferings relieved, the blessings bestowed, and the grief-stricken strengthened,—the humblest physician who works conscientiously deserves all the honors, recognition, and praise "eminence" might offer. Such, however, is not the world's idea, and men of statecraft, of service rendered for country in times of peace or war, men of financial or social success, men of genius, and, lastly, men who have labored to spread the light and blessing of education, are the ideal ones around whom gather the traditions of the past and the applause of the present. Medicine has had such representatives, and posterity has, in some degree at least, recognized them.

Considering physicians who have adorned the profession of medicine as great teachers, leaders in advancing medical knowledge, in improving medical and surgical practice, and, above all, in raising the standard of professional life and medical education, the name of Nathan Smith stands very high.

He was born at Rehoboth, Massachusetts, on September

30th, 1762, of poor parents. Soon after his birth his family moved to Chester, Windsor county, Vermont. Here his father and mother spent the remaining years of their lives, and gave the son such education as the ordinary country schools of the time afforded. That young Smith made the most of his opportunities seems certain. But more valuable by far than schooling, was the solid foundation of physical and moral strength acquired in that simple farm life, in close contact with nature, and under the guidance of religious influences. Here the youth stored up forces which needed but the incident of circumstance to stir into activity, potential and far reaching. Here were developed those traits of character which distinguished him later in life. The close observation and its practical application, self-reliance, unalloyed integrity, and the firmness of purpose which enabled him to overcome difficulties, were all acquired by the sturdy youth during those years. In common with the others of that neighborhood, young Smith served his country in those frontier expeditions against the repeated incursions of the Indians. Often, too, the necessity of circumstances compelled him to undergo the dangers of hunting the savage beasts which then swarmed in the neighboring forests. In one of these excursions he nearly lost his life from exposure, hunger and fatigue.

Later we find Nathan Smith spoken of as a teacher in the district school, a fact which suggests that his mental attainments had already reached a state beyond that of the young men of the period in that vicinity.

Then occurred the fateful event in Smith's life. It happened in this way. The routine of the neighborhood of Chester was disturbed by the report that Josiah Goodhue, of

Putney, Vermont, was to visit the place for the purpose of amputating the thigh of a lad afflicted with some incurable disease. When the day arrived, the surgeon found a large and interested group of spectators gathered at the house of his patient, Smith among the number—"a strange and rather ungainly backwoodsman looking youth," who "stepped up boldly and offered his aid" when the surgeon asked for an assistant who would hold the leg that was to be taken off. The courage, steadiness of nerve, and close attention of the raw assistant impressed the operator, and it is related that he even allowed the young man to tie the arteries as the operation progressed. When all was finished and the curious villagers had departed, Smith remained. To him, at least, the day was more than a casual holiday, the event more than a subject of village gossip. To him the surgeon was a ministering angel of comfort, the workings of the human body more marvelous than he had dreamed. To understand the latter, and to merit the honor of the former, was henceforth to be the pursuit and hope of the man. He immediately put his decision into action, and asked of Goodhue permission to enter his office as a medical student. Now Goodhue * was one of those physicians, who, as we have shown in previous pages, were scattered through a wide range of territory, and were important factors in maintaining a high standard of medical education.

* Josiah Goodhue settled at Putney, Vermont, removed to Chester, Vermont, and later to Hadley, Massachusetts. He was president and a trustee of the Berkshire Medical College. He was one of the first in New England to amputate at the shoulder joint; did trepanning forty or more times; operated for strangulated hernia thirty times. He died in 1829, aged seventy years.—Dr. S. W. Williams's address, Berkshire Medical Institute, Nov. 20, 1829.

His first inquiry, therefore, was as to the qualifications of the applicant for this work. The reply was, "Until last night I have labored with my hands during my life." Goodhue rehearsed the unfortunately low state of the profession of medicine in the neighborhood, giving as his reason for refusing Smith's request that he could not take students who had not received some adequate preparatory education, and that, to elevate it in reality and in the public estimation, only young men properly qualified should be encouraged to engage in it. Fortunately for the future state of medicine, however, Goodhue added the advice that if the young man would place himself under some suitable person for instruction, he would accept him as a student when he had acquired education sufficient to qualify for his entrance into the Freshman Class of Harvard College. Smith was now twenty-one years of age. The conditions imposed by Goodhue were fulfilled within a year under the tuition of the Rev. W. Whiting, of Rockingham, Vermont. Returning to Goodhue, he again asked him to take him, and, after an explanation that he had spent all his money in "fitting" for the position, he was accepted. Goodhue "generously offered him a home and tuition, while the youth on his part was to assist by performing any manual labor that might arise in the country physician's family." The usual apprenticeship terms of three years were conscientiously fulfilled, and in 1787 Nathan Smith began the practice of medicine at Cornish, New Hampshire.

Scarcely had he become established in his practice before he realized his own shortcomings, and he eagerly sought the advantages offered at the Medical School of Harvard College, which had been established at Cambridge a few years before.

Here he attended also the course of lectures on Natural Philosophy, one of the requirements for a degree in medicine at that time for those who were not graduates of a college. He was graduated Bachelor of Medicine in 1790, the fifth man to receive that degree from the University.* His inaugural dessertation was on "The circulation of the blood," and presaged that close observation and study which marked his future career.

Returning to Cornish he continued to practice there for the succeeding six years. He married Sarah, daughter of General Jonathan Chase.

Smith was now qualified both by education and by position to win some reward for his years of study. Such a course might have appealed to a mercenary mind, not so with Smith. Recognizing the crude condition of the medical profession in his neighborhood, and remembering the advice of Goodhue when he first applied for pupilage, he determined to devote his life and labors to bettering the condition of those who were to be his fellow laborers in medicine.

There were then three medical schools in the United States.† To send students from northern New England to such distant places as Philadelphia and New York was scarcely to be considered, on account of the great expense incurred, while the cost of attending courses at Cambridge, even, was well nigh prohibitory to men of limited means. The apprenticeship method Smith had determined was inadequate to meet the demands of the standard he had set as necessary. But one

* 1788, John Fleet and George Holmes Hall; 1789, Peter de Sales Latterriere and William Pearson.

† One at Philadelphia, one at New York and one at Cambridge.

course was left, to establish within easy access to the surrounding country a medical school equipped to supply a correct medical education. Accordingly, he applied to the Trustees of Dartmouth College (1796) "asking their encouragement and approbation of a plan he had devised to establish a Professorship of the Theory and Practice of Medicine in connection with Dartmouth College."

This plan was approved by President Wheelock and the Trustees, but such a novel and far reaching scheme was too important hastily to be entered upon, so it was "voted to postpone final action upon the proposition for a year." In the meantime Smith was to visit Europe in order to broaden the scope of his own knowledge, and incidentally to procure suitable apparatus for undertaking the work of carrying on a school founded upon the plans outlined. This step meant much for the young man. He was now well established in practice, and had a wife and infant son; but, so meagre were his means, that it is said he selected the route to Scotland rather than that to England, on account of a difference in the price of the passage.* Determined to carry out the plan at any cost, he borrowed the funds necessary to undertake the journey, and sailed from Boston in December, 1796, for Glasgow, thus, for the second time, relinquishing his practice, again to become a pupil.

The letters written to his wife during the voyage and his stay in Great Britain illuminate the husband and father. He writes: "Take every possible care of my boy, Solon. Kiss him often for me. I have no fear for myself, my anxiety is all for you and the dear little boy." "I shall be in early in

* Passage from Boston to Glasgow was $75.00; that to London $170.00.

the spring, and hope thro' God's mercy to find you and Solon alive and well. If God will protect me thr' this enterprise, I am determined to abide with you till death shall part us." "I have lately sent you two letters, . . . I have in them expressed my love and constancy to you, and my tenderness for the dear little Solon. All my anxiety is for my family. You are ever in my mind. I am sure I shall ever be happy if I live to return and find you and Solon alive and well. My country, my friends, and acquaintances will be dearer to me than ever. I shall probably be at home in a few days."

Smith's visit to Europe was opportune and profitable. He had studied sufficiently and had practiced extensively enough to appreciate the advantages to be derived from the masters then offering instruction at Edinburgh and London. In the former town he attended the medical lectures of Monro and Black for three months, after which he went to London, where he remained four months. While in Edinburgh he sent to Dartmouth College books valued at thirty pounds, "which he hoped the trustees of the College would purchase, as he could ill bear the expense." At London he procured the necessary apparatus for anatomy, surgery and chemistry to be used for beginning courses in the new medical institution which he now felt certain was to be established. He reached Boston early in September, 1797, having since sailing been elected a Corresponding Member of the Medical Society of London,* although he had not yet obtained the degree of M. D.

* This honor was due to John Coakley Lettsom, one of the organizers of the Society in 1773; a contributor to Harvard College in 1794-6 of over eight hundred specimens of valuable minerals, "the richest and most extensive collection of minerals in the United States." He received the M. D. from Harvard in 1790.

Smith immediately set about carrying into execution the plan already matured; and he delivered a first course of lectures early in 1798, even before his election as Professor. In August, 1798, the Trustees formally appointed him a Professor, "Whose duty it shall be to deliver public lectures upon Anatomy, Surgery, Chemistry and the Theory and Practice of Physic." These lectures began early in October, and continued ten weeks.

Smith was now granted the degree of A. M. (1798 Dart.), to which the College added that of M. D. in 1801.

The establishment of the Medical School at Dartmouth has an added interest to us from the fact that Smith's first assistant in that school was another alumnus of our own, Lyman Spalding. Spalding was graduated M. B. at Harvard in 1797, and in the following year he lectured on Chemistry and Materia Medica at Dartmouth, and printed for the use of the classes "A new Nomenclature of Chemistry, proposed by Messrs. De Morveau, Lavoisier, Berthollet and Fourcroy, with additions and improvements." Spalding afterwards attained distinction as President and Professor in the Medical School of the Western District of the State of New York, at Fairfield, in 1812; his work in behalf of the publication of the "American Pharmacopoea" in 1820, brought to him, with another Harvard teacher, Jacob Bigelow, the honor of being the originator of that undertaking.

The first years of the new school at Hanover were beset with difficulties. A small two-story house of four rooms was first used for the lectures, and later two rooms in the lower story of Dartmouth Hall* served as lecture hall, dissecting

* This building was destroyed by fire in 1904.

room, chemical laboratory, and library. In 1811 a modern building was erected for the Medical School.

One must admire the courage of a single individual undertaking such a task. It was well recognized that the school established at Cambridge had not received that degree of support from the surrounding country practitioners which the founders had expected. Yet here was a young physician, without a liberal education, and with very meagre resources, daring to hope for success in the wilderness of the interior, far removed from the necessary things of life, in infrequent communication with the nearest metropolis, Boston, except such as was possible by means of stage over roads unmade, and through a wild dangerous country. The opening up of a new territory, in those early days, abounded in deeds of heroic self-sacrifice by the pioneers. But an instance of a physician voluntarily carrying the means of education into new regions had never before occurred, and it is doubtful if its like has ever since been attempted. No thought of self-aggrandizement could have animated the man, no hope of personal gain could have incited him. He held already the first position in his neighborhood, and he knew the pecuniary status of those whom he was seeking to aid. Even if the life-work of Nathan Smith had stopped here, his successors in the medical profession would have cause to honor his memory.

The sagacity and wisdom of Smith's undertaking soon were apparent. The trials and discouragements encountered in bringing about success are vividly sketched in his many letters *

* Letters in the possession of Mrs. Alan P. Smith, of Baltimore, Md., widow of the grandson of Nathan Smith; also letters in possession of Dr. Fred'k C. Shattuck, of Boston, grandson of George Cheyne Shattuck.

to his friend and pupil, George Cheyne Shattuck, who later, on Smith's death, accepted the responsibility of guardian to Smith's son, Nathan R. Smith.

In letters of October, 1809, Smith says:

"A tinman living near Boston Stone will make the instruments of tin which I wrote for extremely well, as he can give a very high polish."

"The reflectors I wrote for you will find described in Henry on his. of caloric. They should be twelve inches diameter and segments of a circle or sphere of nine inches radius.

"The canister you will find described on the next page; it says *polished block tin,* six inches square, and I wish also that you would send me a little tinfoil.

"We have commenced our course of medical instruction in this place. I do not know how many students we have, as I have not yet taken a catalogue but have already over fifty medical students and fifty or more from the college, making in all a little more than a hundred.

"I have lately become acquainted with a Mr. ——, from Salem, who has gratuitously offered me whatever I may find in his garden that will be useful to me. I am informed that he has one of the best gardens in New England. This was what I wanted very much and shall make my calculations to profit by it. I will visit him in April or the very first of May next and shall spend my time there, at Boston, and Newbury till the last of that month with a view to possess myself of everything pertaining to gardening and agriculture that may be useful in this part of the country.

"Respecting the glass retort you may send me two or three: the middling size is the best.

"I shall soon be able to transmit to you the means of paying for these things.

"If you have a man in Boston who makes thermometers and if he can do it, I wish to have an air thermometer constructed according to Henry's directions in his chapter on Caloric, I presume you can find that book in Boston and the workman may follow that in his work.

"If no other opportunity should offer I wish you would send these things by the stage; if they are carefully put up and sent by the mail and the driver well charged, I think they would come safe to hand.

"I want you to procure for me about one gallon of winter strained lamp oil, one quarter of a hundred of red lead, and sixteen pounds of mercury. The whole of these articles will be too much to send by the stage, but if an opportunity should not offer for sending them otherwise I wish you to send me about half a dozen oil flasks by that conveyance, the remainder of the dozen I should like to have sent by the first team or

when you send the other articles and should like it as well to have them sent full of oil as they come to hand.

"If opium is less than $1.50 an ounce ask the apothecary to put up four ounces for me.

"Mr. W——. will speak with you respecting publishing some accounts of our medical affairs in this state, especially as respects the late grant for a medical building about which some of our people are making a political issue.

"I have already received several pupils for attending the opening course of lectures and have heard of a greater number than usual at this time who are calculating to attend. I feel very anxious to meet them and shall neglect nothing that I can do to render the institution reputable."

In a later letter he writes:

"I have closed my course of public instruction for the present year, perhaps with as much credit as I have done heretofore. We had a very good course on anatomy, much better than at any former time. We were very fortunate in obtaining *subjects*, and have dissected three which were all pretty good; the one brought by T. was excellent.

"I have lately added 52 volumes to my library of historical works;* as my time is so taken up that I cannot read such lengthy works have set two pupils to reading them in course and have requested them to fix a kind of index to everything relating to medicine or medical men to be found in the several works so that I hope to reap some advantage from the books tho' they are not medical.

"In your last you mentioned a gentleman who is going to England and who will purchase any books I wish for. I do not know whether he is a bookseller or whether he must have the money to purchase with before he goes; if he is a dealer in books and will purchase books which are wanted and will wait for his money till the books are delivered at Boston, should be glad to purchase to a considerable amount, but the dearth of money here is so great that I can not immediately send enough to make it any object; not having as yet made any collections the present year.

"I will, however, make out a list of books which I should be glad to purchase and for which I would pay the money as soon as the books could be procured, and perhaps the man you mention or some importer of books will be willing to order out the books:

"Bell's Anatomical Tables and Dissections; Sayer Walker's Observations on the constitution of Women and Diseases to which They are Lia-

*"Mavois' General History," 26 vols.; "Mavois Voyages," 19 vols.; "Hume's England," 8 vols.

ble; 'Pemberton On Diseases of the Abdominal Viscera; Stone on Diseases of the Stomach; Edward Homes' Observations on Cancer.'

"I wish you to send me one canister of the best gun powder."

From such writing it may be judged in some degree, at least, how Nathan Smith labored for the advancement of the Dartmouth Medical School. The whole burden of the school was borne by him, except for the assistance given by Spalding (in 1798 and 1799) who lectured on chemistry and Materia Medica. Smith was Professor of Medicine and Lecturer on Anatomy, Surgery, Midwifery and the Theory and Practice of Physic. His first and only colleague at Hanover was Cyrus Perkins (Dart A. B. 1800; M. B. 1802; M. D. 1810) who was appointed Professor of Anatomy and Surgery in 1810, at the request of Smith, "for relief from teaching Anatomy."

As the number of students increased, and as these later went out into practice, the fame of the elder Professor grew rapidly. To this new, young and intelligent class of practitioners Smith was always a kind councillor, as he had been a trusted guide. To them he gave his assistance and time freely, and often at great personal sacrifice; under the most favorable conditions, remuneration for services was very inadequate, and an increase of knowledge and skill on the part of the physician did not bring a corresponding increase of fees. In fact, it frequently had the opposite result, especially in the case of one so generous and unselfish as Nathan Smith.

This state of affairs led him to petition the Legislature of New Hampshire in 1803 for aid. He was granted $600 for apparatus, and a further sum of $3,450 was voted in 1809 for the erection of a brick or stone building for a Medical

School, on condition that "he would give a site for it, and assign to the State his Anatomical Museum and Chemical Apparatus." This Smith did in June, 1811, by conveying to the State of New Hampshire forty-five square rods, upon which was erected a brick building seventy-five feet by thirty-one, containing two large lecture rooms, and two wings of three stories each for the library, chemical laboratory, museum, etc.

The eight years intervening between Smith's petition (1803) and the final action (1811) were discouraging even to a man of his character. In 1804 the Trustees voted him an annual salary of $200 on condition that he reside at Hanover.

The following interesting letter from Nathan Smith to George C. Shattuck is dated May 14th, 1810:

"Dear Sir:

"I have at length decided to leave Hanover, but at present have not concluded on any certain place of future residence. The political parties are so very jealous of each other in this state and so near a balance that I have nothing to expect from either as some ignorant persons might be offended at any grant or assistance voted by the Legislature to promote what they term the 'Cutting up of dead bodies.' No one will choose to advocate the measure and I expect they will, if not deemed too unconstitutional, revoke the grant made for that purpose last year; and if that can not be effected they will enact laws which will inflict corporal punishment on any person who is concerned in digging or dissecting. If the thing should take this course it will afford me a great pretext for leaving the college and state, a thing which will not be disagreeable to me. The proposal I made the State of giving land and the whole of my museum and apparatus was too much to give, but while engaged in promoting the school in this place I felt willing to go all lengths in sacrificing on the Esculapean altar; but the conduct of people and parties has cooled my ardor for laboring in my avocation in this place, and determined me to sell my talents in physic and surgery to the highest bidder.

"I shall attend the medical meeting at Exeter on the last Wednesday in this month and shall go from thence to Boston thro' Newbury and Salem. I propose to spend a week or two in Boston and shall then have an opportunity to converse with you on all subjects.

"I have not yet forgotten the abuse heaped on me by Dr. X.
"I am in haste, Your friend and servant "NATHAN SMITH"
"Hanover
"Monday. May 14th, 1810."
"P. S. You will not at present mention publicly my intention to remove from this place."

Smith evidently wished to establish himself in Boston, for he writes under date of March 18, 1811: "I feel more inclined than ever to move to Boston to practice my profession."

Whether it was "the abuse heaped upon him" by one of the Boston physicians, owing to a misunderstanding over the payment of fees for his course at the Harvard School, or whether the inducements offered by the opening of another new medical school outweighed those presenting themselves at Boston, the fact remains that in 1812 Smith accepted the appointment of Professor of the Theory and Practice of Medicine and of Surgery in the Medical Department established at Yale College in that year. He began his course at Yale in 1813, and continued as Professor in the School there until his death. Smith's resignation from Dartmouth was not accepted until 1814. He was re-elected in 1816, but declined the place. However, he gave a final course of lectures that year,—a course attended by sixty-six medical and forty-four college students. He removed finally to New Haven the following year.

In 1814 the Legislature of Connecticut granted $20,000 to Yale College. This money was obtained principally through the personal exertions of Nathan Smith. A stone building was purchased, a Library begun, and the foundation of an Anatomical Museum laid down with this money. Of his labors at Yale it was said: "His lectures, which were commonly, if not always, extemporaneous, were probably at no pe-



riod more fraught with various knowledge and with the results of recent observation and reading, than from the time he removed to New Haven till his death." This period was certainly one of great mental activity for him. A recent memorialist* says: "Dr. Nathan Smith, when he came to New Haven from Dartmouth, was already a star of the first magnitude in the medical firmament. . . . Nathan Smith shed undying glory upon the Yale Medical School. Famous in his day and generation, he is still more famous today, for he was far ahead of his times, and his reputation, unlike that of so many medical worthies of the past, has steadily increased, as the medical profession has slowly caught up with him. We now see that he did more for the general advancement of medical and surgical practice than any of his predecessors or contemporaries in this country. He was a man of high intellectual and moral qualities, of great originality and untiring energy, an accurate and keen observer, unfettered by traditions and theories; fearless, and, above all, blessed with an uncommon fund of plain common sense."

While the two schools (Dartmouth and Yale) were making satisfactory headway, the new State of Maine saw the necessity for a medical school, and in 1820 established one, with an annual appropriation of $1,000. This school was opened in connection with Bowdoin College in 1821. It was established with the understanding that Nathan Smith should undertake its founding. In relation to this question Smith wrote:† "I

* William Henry Welch, M. D., LL. D. "The Relation of Yale to Medicine," address at the Two Hundredth Anniversary of the Founding of Yale, Oct. 21, 1901.

† Address by William Allen, D. D., President Bowdoin College, March 26, 1829.

think after what experience I have had, we could form a medical school that would, in point of real utility, equal any in the country. In a new State like Maine, where neither habit nor party have laid their ruthless hands on the public institutions and where the minds of men are free from the poisonous influence, everything is to be hoped for. Such a field would be very inviting to me, and such a place I take Maine to be. For, though they have heretofore been divided into parties, I am disposed to think that now they have become a State and are left to themselves, party spirit will in a great measure subside, and they will be ambitious to promote the honor and welfare of the State."

The Medical School of Maine was opened in the spring of 1821, in Massachusetts Hall. Smith delivered all the lectures, except those on Chemistry, which had previously been given for years at the College. He abandoned Anatomy, also, after the first two years. At the first course there were twenty students, while there were forty-nine in the next course. It is said that Smith "couched" nearly twenty eyes for cataract during his first course at this school. He continued to lecture at the Maine School for five years, when his duties at Yale and in a very extensive consulting practice forced him to resign from Bowdoin. Thus he successfully established *three* medical schools, all of which have long since proved that the foundations he laid were firm and solid; upon which have since been reared institutions honorable alike to the founder and to the cause he so fondly cherished,—higher medical education.

In addition to the duties entailed by his lectures at Yale and Bowdoin, he gave four courses of lectures at the University of Vermont between the years 1822 and 1825 inclusive. His

whole career as a teacher of medicine covers the period 1797 to 1828 inclusive, and in that time he was connected with forty-two general courses, and gave instruction in different departments in about one hundred and thirty-eight special courses.

An attempt to trace the value and extent of the work done by this one man would be an impossible task in this writing. Nor were his good works confined to teaching and practicing. He is one of the early medical writers in this country, and his productions have not suffered by the advances and changes in medical science.

In 1824 Nathan Smith published a treatise on Typhus Fever, in which he gives a description of the disease now known as typhoid. The symptoms of this malady had not hitherto been accurately pictured. His description is clear, and in such harmony with modern text books that it seems incredible he wrote over eighty years ago. Smith's Essay is founded upon his own extensive observations and experience; it speaks volumes for the accuracy of the former and the extent of the latter.

He recognized two very important facts; that the disease is due to a specific cause, and that the disease is self-limited. "As I consider Typhus Fever as arising from a specific cause, if it begins Typhus, or arises from such specific cause, I believe it to continue Typhus through its whole course. Variations, in severity or mildness, can make no specific difference in the disease."* . . . "During the whole course of my practice I have never been satisfied that I have cut short a single

* Page 53.

case of Typhus that I knew to be such; nor have I seen a solitary instance of its having terminated within fourteen days from its first attack." †

His remarks upon the treatment are just as refreshing. Few today would differ from his advice: "I am clearly of opinion that we had better leave the disease to cure itself, as remedies, especially powerful ones, are more likely to do harm than good. In such cases the patient gets along better without medicine than with; all that is required is to give him simple diluent drinks, a very small quantity of farinaceous food, and avoid as much as possible all causes of irritation." § These were brave words in an atmosphere charged with blood letting, antimony, and cathartics. Again he writes: "The most effectual method of reducing the temperature of the body is by the use of cold water, which may be taken internally, or applied externally." It took the profession many years to appreciate the principle this early practitioner found so true.

To the surgeon, also, Smith brought fully as much truth and progress. In his "Observations on the Pathology and Treatment of Necrosis" he shows the same power of accurate description, and a method of treatment which seems to have anticipated modern surgery. As an operator he was bold, original, and ingenious, often devising new splints or apparatus to meet the requirements of a given case. His ovariotomy on July 5, 1821, was without any knowledge of McDowell's achievement twelve years before, and stands second in time as an historical event in that line of surgery. "To him is justly due the credit of having introduced and diffused over

† Page 70.

§ Page 78.

a large part of New England the most correct practice of all the celebrated surgeons of the past and the present century, which is no mean praise."*

Much might be written upon the ability of Smith as a lecturer; his unselfish devotion to the interests of others; his kind-hearted and gentle manner at home, or abroad among patients and fellow-men; and, above all, his great moral courage in daring to do what his convictions led him to accept as his duty. With the characteristic modesty of greatness, many of his sterling qualities of character must ever remain buried in the unrecorded past. Sufficient, however, has been told to justify the pride which every Alumnus of the Harvard Medical School should feel that our Alma Mater helped to nourish the seed from which sprung much of Nathan Smith's greatness; that Dartmouth, Yale, Bowdoin, and the University of Vermont, owe him a heavy debt; and that largely through him the medical profession and medical education were elevated, broadened and maintained through a period when circumstances and conditions both were tending to blight the budding seed in this country. Where in the list of great American physicians and surgeons can a name be found which stands for greater services to medical education during the first quarter of the nineteenth century?

It can truly be said that Nathan Smith died for the cause for which he had so strenuously labored. Unmindful of a slight attack of vertigo in July, 1828, he continued to make preparations for his lectures. A fatal attack of paralysis over-

* Prof. Knight's address quoted in Prof. Hubbard's lecture, 1879; and from this latter much of the foregoing information has been obtained.

took him while delivering these lectures in the following December, and he died January 26th, 1829, at the age of sixty-seven years. His monument stands in the New Haven cemetery, fashioned after the tomb of the Scipios at Rome.

REMOVAL TO BOSTON, 1810.

CHAPTER XIV.

REMOVAL TO BOSTON.

—1810—

For some time prior to 1810 it was becoming evident to the College authorities that the removal of the Medical School to Boston was both expedient and necessary. It was well understood that unless the Harvard Medical School was established in Boston, that institution would become secondary to another Medical School set on foot by certain individuals in Boston.

Influenced by this consideration, a majority of the members of the Medical Faculty petitioned the College Corporation to establish the School in Boston.* This petition was granted by the Corporation July 13th, 1810, and confirmed by the Overseers, July 26th, 1810. There were, however, certain conditions imposed upon the Medical Professors, the principal conditions being that a course of anatomical lectures and a course in chemistry should be given annually at Cambridge for the benefit of the senior academic class; and further, that the fees formerly received from the students of the University who took the anatomical and chemistry courses with the medical students should be thereafter relinquished by the medical professors. These conditions were agreed to, but when the time for the delivery of these Cambridge lectures arrived the senior class were unwilling to attend without the usual dissections. Much negotiation resulted, and it was finally agreed that the

* Waterhouse was not in favor of the petition.

students should subscribe a certain amount to obtain the dissections.

The carrying out of this arrangement soon became impracticable on account of the agitated state of the popular mind concerning abuses in obtaining material for dissections. This difficulty came near causing the abandonment of the project of moving the school. "We have, however, too far advanced to retreat," * said John Warren, so it was decided that the members of the senior class, except poor students, should each be assessed a sum of not less than ten dollars, annually, and Holden Chapel was newly arranged (1814) for the special medical lectures at Cambridge. Costly wax preparations were purchased to supersede the necessity of dissecting human subjects.

The school opened in Boston on the first Wednesday in December, 1810, at rooms in White's Building, 49 Marlborough Street (now Washington Street). John C. Warren had conducted a private dissecting room in this place since 1805, and John Gorham had given lectures on Chemistry there, with Warren, for about two years prior to the removal of the medical school from Cambridge.† These private courses were largely patronized by medical students, and by physicians of Boston and vicinity, so that the rooms selected as a location for the Medical School had already acquired a reputation.§

* John Warren, in a letter to President Kirkland, March 25, 1814.

† William Ingalls, M. B., 1794, H. U., Professor of Anatomy and Surgery at Brown University, was lecturing in Boston on these subjects at this period.

§ The rent paid was $350.00 a year, which was advanced by the teachers out of the proceeds of the income from the lectures. The College Treasurer had no jurisdiction over the Medical School funds.

The first public lecture, introductory to all the branches, delivered in Boston, was by Professor Waterhouse, after which the Lectures proceeded as follows: 9 A. M., Drs. Dexter and Gorham; 10 A. M., Dr. Waterhouse; 1 P. M., Drs. John and John C. Warren; 4 P. M., Dr. Jackson. Visit to Almshouse Hospital between the lecture of Dr. Waterhouse and that of the Drs. Warren. To quote: "During the continuation of the above lectures, surgical operations will be performed, and subsequent attendance afforded gratis, by the Professors of Surgery, on all persons whose circumstances shall be such as to render them proper subjects, provided they bring certificates to that effect from the Selectmen of the towns where they reside."†

The Medical School continued to occupy the rooms at No. 49 Marlborough Street until the erection of a building of its own on Mason Street in 1816.

At a meeting of the Overseers of Harvard College, July 23rd, 1810, the question of concurring in the election of James Jackson to the office of Professor of Clinical Medicine, which had been created the month previous, was considered at some length. After much debate it was *voted,*

"That Hon*l* Dr. Aspinwall, Hon. Judge Parker, Hon*l* John Williams, Revd. Dr. Holmes and Revd. Dr. Eckley be a committee to consider the Medical Institution at Cambridge and report whether there be anything in the establishment of a clinical professor of medicine inconsistent with the former establishment."

This committee reported August 28th, 1810, as follows:

"That on examination of the original Establishment of the professorships of Anatomy and Surgery, of the Theory and Practice of Physick,

† "Columbian Centinel," November 28, 1810.

and of Chemistry and Materia Medica, and comparing it with the recent establishment of a professorship of clinical medicine they do not find any inconsistency or encroachment of one upon the other.*

"That the establishment of the last mentioned professorship appears to be for the advantage and reputation of the University, and will, in the opinion of the committee, be of publick utility.

"The committee further ask leave to report that if in the future it should appear that the establishment of the new professorship shall have necessarily diminished the emoluments of the Professor of the Theory and Practice of Physick, there is no doubt his claim to indemnity will be duly considered and determined upon by the government of the College; and that it is impossible to ascertain now whether any such diminution will take place, or whether on the contrary the new establishment may not promote the personal advantage of the professor.

"Which is humbly submitted WILLIAM ASPINWALL
"per order."

"The chairman having read the report, and declared the committee was agreed in making it, he said, he had since altered his mind and was totally opposed to it.

"After a long debate the motion was put, and Voted to accept the Report.

"The motion was then made for concurrence in the election of James Jackson, M. D., as professor of Clinical Medicine in the University at Cambridge. 'Voted to concur, 25 Votes, 20 yeas.'

The foregoing records are reproduced in detail on account of the present general belief that there was no professor of Clinical Medicine until 1855,† and that the office held by Jackson from 1810 to 1812 was that of Lecturer. It is interesting to note what Jackson had to say upon the question: §

"One thing is omitted as to the medical Professors. I mention it, but do not think it material. In 1810 a professor of Clinical Medicine was appointed. I was appointed without salary. In 1812 (I think) I was appointed Professor of the Theory and practice, and *it then was made lecturer of clinical medicine*—(italics substituted)—it not being thought well that I should nominally hold two professorships."

* Waterhouse had presented a memorial setting forth that the new position was an encroachment upon his office.

† As stated in the Quinquinniel Catalogue.

§ From detached portion of a letter from Jackson to President Kirkland. Harvard Library Archives.

The Medical School was now equipped with six professors: Professor of Anatomy and Surgery; Professor of Theory and Practice; Professor of Chemistry and Materia Medica; Adjunct Professor of Anatomy and Surgery; Adjunct Professor of Chemistry and Materia Medica; Professor of Clinical Medicine. The total number of Professorships in the University (1810) was eleven.*

The Alford Professorship of Natural Religion, Moral Philosophy, and Civil Polity was endowed in 1789 by Edmund Trowbridge and Richard Cary, Executors. Not occupied until 1817.

The first circular issued by the Medical School was dated September 5th, 1810, and reads as follows:

"Boston, *September 5,* 1810.

"Sir,

"The medical institution which has heretofore existed in Cambridge has lately undergone such important alterations, that we have presumed some information of its actual arrangements might be agreeable to you and useful to some of your friends.

"Every physician in New England has, no doubt, been aware of the difficulty, in obtaining a good medical education in this part of the United States. This difficulty has arisen principally from two sources. The first was the want of long and minute courses of lectures. The second, the deficiency of opportunities for exhibiting to students actual cases of disease; and the practice employed for them, in medicine and surgery.

"We expect to be able to remove these embarrassments in future. The

* Hollis Professorship of Divinity, founded 1721.
Hollis Professorship Mathematics and Natural Philosophy, founded 1727.
Hancock Professorship, Hebrew and other Oriental Languages, founded 1764.
Boylston Professorship, Rhetoric, Oratory and Elocution, founded 1771.
Hersey Professorship Anatomy and Surgery, founded 1791.
Hersey Professorship Theory and Practice of Phisic, founded 1791.
Erving Professorship Chemistry and Materia Medica, founded 1791.
Massachusetts Professorship of Natural History, founded 1805.
Adjunct Professorship, Anatomy and Surgery, established 1809.
Adjunct Professorship, Chemistry and Materia Medica, established 1809.
Professorship of Clinical Medicine, founded 1810.

Honourable and Reverend Corporation and Board of Overseers of Harvard College have established a medical school, in the town of Boston. The professors, all of whom except one reside there, will be able to devote a longer time to the lectures than they formerly did, and thus to render them more minute and more instructive. The second source of difficulty has been obviated by the liberality of the Honourable Board of Overseers of the poor of the town of Boston, who have committed the charge of the hospital department of the Alms House to such of the medical professors of the University as have been recommended by the Corporation. This department contains about fifty patients, afflicted with a variety of diseases, which are the objects of both medicine and surgery. Operations in surgery also occasionally present themselves. These will afford very important practical advantages, all which will be accessible to the medical students.

"The following courses of lectures will be commenced in Boston, on the first Wednesday in December:

		FEES.
"*Anatomy and Physiology* } "*Surgery and Midwifery* }	by DR. WARREN, Sen. and DR. WARREN, Jun.	$25
"*Theory and Practice of Physic,*	by DR. WATERHOUSE.	$15
"*Chemistry and Materia Medica* }	by DR. DEXTER, and DR. GORHAM.	$15
"*Clinical Medicine*	by DR. JACKSON.	$20

"The number of lectures will probably be about fifty, certainly not more than sixty, during the present season. This number will be gradually increased till it equal that given in the most respectable seminaries in the United States. The lectures will be delivered daily.

"The object of the new Professorship of clinical medicine is, 'to point out at the bedside of such sick persons, whose cases may be suitable for the purpose, the symptoms of the diseases under which they may labour, and to lecture upon the nature of such diseases and the indications of the cure and methods of treatment, which have by experience been found most successful in similar diseases.'

"In addition to the lectures on surgery, the professors of that branch will exhibit to their students, at stated periods, the cases of surgical diseases in the hospital of the Alms House; also the operations in surgery, which may occur in publick or private practice, without any additional fee.

"Some other important practical advantages will be accessible to the students. These cannot be specified at present.

"The medical students or others will be allowed to attend either one, or more of the above named courses, as they may think proper.

"Those, who desire to obtain a medical degree, must attend two courses in each branch. The degrees will be conferred, as formerly, at the University.

"The professors possess a very valuable collection of anatomical preparations, which will greatly aid their demonstrations on recent subjects. They have a chemical apparatus, which is extensive and adequate to the performance of the experiments, which should illustrate lectures on chemistry. These are to be deposited in commodious apartments in a building, now preparing for the purposes of the institution. There is also an excellent library, established by the munificence of WARD NICHOLAS BOYLSTON, Esq., the use of which will be enjoyed by the students.

"It is believed that the price of living in Boston will not greatly exceed that in country towns, at least to those, who are willing to make some temporary sacrifices to the acquisition of knowledge, which will be permanently profitable to them. The professors will be able to point out houses, where the students may be lodged and boarded for $3.50, or $3 for a week. They will also endeavor to render the situation of the students comfortable, and to promote their improvement in medical learning, by every means in their power.

"Private pupils will be received by the professors on the usual terms.

"It is thought necessary to state minutely the reasons which have caused the establishment of this medical institution in the town of Boston; or to urge the superior advantages of a medical school, placed in a populous town. Boston contains from thirty to forty thousand inhabitants, and is closely surrounded by the large towns of Charlestown, Cambridge, Roxbury, and Dorchester. The opportunity, among so great a number of people, of observing the diseases and accidents incident to mankind, must be very extensive. The consequent collection of a large number of able practitioners with whom the students may have an important literary intercourse, and the necessary concentration of medical knowledge, are advantages not to be overlooked. It is obvious that all these sources combined may afford to students a portion of useful information, in the course of three or four months, which they would in vain seek for in a long period of practice in the country.

"The subscribers have founded an expectation on these circumstances that students will resort to Boston from every part of the country; that thus they shall be enabled to enlarge the institution in various ways, so that this shall become, what it ultimately should be, THE MEDICAL SCHOOL OF NEW ENGLAND.

"We are, Sir, with respect,

"Your very humble servants,

"JOHN WARREN,
"BENJAMIN WATERHOUSE,
"AARON DEXTER,
"JAMES JACKSON,
"JOHN C. WARREN,
"JOHN GORHAM."

In 1810 there were five medical schools in the United States. Seven schools had been organized in the first thirty years after the war. The two Philadelphia schools were merged into one; one in New York died; one existed in New York; one in Boston; one in Baltimore; and one at Hanover, New Hampshire. In these five schools there was an attendance of about 650 students, of whom three-fourths (498) were at the University of Pennsylvania.* From all the schools there were probably 600 degrees granted prior to 1810.

The great influence which the acquisition of the three young teachers, Gorham, Jackson and John C. Warren, exerted upon medical science and the Harvard Medical School may be appreciated by learning something of the men themselves.

John Gorham was born in Boston on February 24, 1783. He lived for a time at Exeter, New Hampshire, after which he fitted for college at the Latin School in Boston. He was graduated at Harvard, Master of Arts, in 1801. He then studied medicine for three years with his future father-in-law, John Warren, and was graduated Bachelor in Medicine from Harvard in 1806. Pursuing his studies further, he spent two years in London, Edinburgh, and Paris, returning to Boston in 1808, where he worked and taught until his death in 1829. Gorham had a genial, youthful appearance which probably curtailed his chances of acquiring professional practice to a degree commensurate with his knowledge and ability. On the other hand, it was this sprightliness, good humor, and natural ingenuousness which made him such a favorite as a teacher and fellow practitioner. Of a philosophical mind, he

* Address by N. S. Davis, 1877.

sought largely the latest and best there was in the scientific world. Chemistry was then the branch of science receiving special attention, and to this branch Gorham early applied himself. Returning to Boston at a time when Dexter, who had been Professor of Chemistry in Harvard University since 1783, was feeling the necessity of transferring the burdens of that office to younger hands, Gorham was the logical candidate for the new place. Dexter promised him all the assistance necessary to attain the position of Adjunct Professor of Chemistry in the University. This honor was given him in 1809, and from that date his services in the medical school were a factor in promoting the interests of the whole University. Gorham's style as a lecturer was easy, familiar, methodical, fluent, exact; showing a perfect command of his subject, inspiring confidence and respect. He had facility and skill in adapting his lectures to the standard of his auditors, and this made him both popular and effective.

Upon the resignation of Dexter in 1816, Gorham was appointed Erving Professor of Chemistry and Mineralogy. With increase of private practice however he found the duties of this office too exacting, so the college authorities released him from the lectures to the undergraduates at Cambridge, by dividing the professorship (1816) into two parts. Gorham continued to occupy the Erving professorship until 1827, when he resigned. During his short active life he was a prominent participant in the literary and scientific societies of the State. In 1819 he published an introductory treatise on chemistry, and in 1820 the second volume of the same work, "Elements of Chemical Science." A contemporary says of it: "It is written in a plain concise style, clear and methodical, and

may be considered an accurate and judicious exposition of the state of the science at that time." His address upon the occasion of his inauguration as Erving Professor is a valuable historical sketch of the science of chemistry.

Gorham was one of the founders of the "New England Medical Journal," the forerunner of the "Boston Medical and Surgical Journal," and was at one time its sole editor. His co-worker and friend James Jackson said of him: "During twenty years and more I know not that he has made an enemy." That was a valuable man to have in a medical faculty, and all testimony goes to show that he proved valuable for the Harvard Medical School.

John Collins Warren, the Adjunct Professor of Anatomy and Surgery, was graduated from Harvard in 1797. After studying one year with his father, John Warren,* then Professor of Anatomy and Surgery, he entered Guy's Hospital in London as dresser to William Cooper, senior surgeon. This experience gave Warren abundant opportunities to develop his taste for surgery, and he declares in one of his letters to his father, "now I see a good operation with the pleasure I used to feel at the successful solution of Euclid's problems,—a pleasure greater than almost any I know. I have acquired that taste, that high relish, for these, without which no man can exert himself for the attainment of any art; and am only surprised that I was so long blind." Cooper was quite old, and made only occasional visits to the hospital, consequently his "dresser" had exceptional opportunities to practice

* The Warren family have furnished four eminent surgeons—John Warren, 1753-1815; John Collins Warren, 1778-1856; Jonathan Mason Warren, 1811-1867; and John Collins Warren, 1842.

surgery on his own account. Upon the retirement of William Cooper, during Warren's interneship, Astley Paston Cooper, his nephew, became surgeon and lecturer to Guy's. The attachment formed between that rapidly rising surgeon and young Warren was ever after a source of mutual pleasure and benefit.

After a year's stay at Guy's Hospital, Warren spent two years in Edinburgh, Holland, Belgium and Paris. At Edinburgh he studied under Gregory, Hope, John and Charles Bell, and Monro. In Paris he lived with Dubois, then sole surgeon to the Clinique de l'Ecole de Médecine, and also studied with Vouquelin, Corvisart, Desfontaines, Sabatier, Cuvier, Chaussier and Dupuytren,—the last not yet known to fame. Warren's stay in Paris was something over a year. Returning home in December, 1802, equipped with the advantages thus acquired, he entered immediately upon practice. His father had recently suffered an attack of paralysis and felt the need of an assistant in his practice which was then the largest in Boston, if not in New England. J. C. Warren assumed the responsibility of his father's entire practice during the following summer, and in the autumn of that year (1803) he undertook the dissections for the lectures at Cambridge.

In 1805 Warren opened rooms over White's apothecary store (No. 49 Marlborough Street, now Washington Street), and gave public demonstrations in anatomy. These lectures and demonstrations were largely attended by physicians and medical students of Boston, and anticipated the establishment of the Harvard Medical School, in Boston, five years later. Besides these courses, Warren was able to offer to medical students the advantages of clinical work at the Alms House,

where he and James Jackson gave their services for the privilege of exhibiting the cases to the classes. It was a great advantage therefore to have these two young active physicians as professors in the Harvard Medical School.

John C. Warren was elected Adjunct Professor of Anatomy and Surgery in 1809. When the school was transferred to Boston, in 1810, it found quarters in the rooms which Warren had fitted for his anatomical course. In the many undertakings for the preservation, growth and advancement of the school Warren was a leading spirit. First, the determined attempt to set up a rival school was overcome and defeated by the stanch support given to Harvard by Warren, Jackson and others. Next, the obtaining of a legislative grant to build a new building in Mason Street owes its success fully as much, if not more, to Warren than any other single individual. The raising of more than $150,000 for the erection of the Massachusetts General Hospital is a fitting tribute to the confidence and esteem in which, with the other founders of that institution, he was held by the public. His selection as visiting surgeon upon the opening (1821) of the hospital seems to have been a natural consequence. Upon the death of his father in 1815, J. C. Warren was elected to the professorship of Anatomy and Surgery, the vacancy thus created. This position he held until 1847, when the Hersey Professorship of Anatomy was established in place of the Hersey Professorship of Anatomy and Surgery, and Warren was made *Emeritus* Professor. The University of Pennsylvania offered him the professorship in Anatomy upon the death of Caspar Wistar in 1818, and the University of New York offered the same chair at that school in 1838.



John C Warren

A. B. 1797; A. M.; M. D. (Hon.) 1819.
Adjunct Professor Anatomy and Surgery 1809-1815.
Hersey Professor Anatomy and Surgery 1815-1847.
Professor Emeritus 1847-1856.
Dean Medical School 1816-1819.



The "New England Journal of Medicine and Surgery," which became the "Boston Medical and Surgical Journal" in 1828, was instituted (1812) an official organ of the Massachusetts Medical College (Harvard) and had for its editors the professors of the school. Warren assumed the duties of editor when the publication became the "Boston Medical and Surgical Journal," and much of the success of that valuable paper was due to him. His work, "Surgical Observations on Tumors,"* added prestige both to the author and to the school for which he labored.

On returning from a journey in Europe in 1837, Warren relinquished much of his practice, but devoted himself with renewed energy to his teaching. His efforts in procuring the erection of the North Grove street building (1846), for the medical school, which had long outgrown its Mason street quarters, were punctuated by his presentation, in the following year, of a valuable collection of anatomical preparations to the school. These preparations have proved extremely useful in teaching anatomy. His name is appropriately perpetuated by this gift,—The Warren Museum.

On a memorable morning in October, 1846, Warren was the central figure in that important event which has no parallel in history, the introduction of ether anæsthesia in surgical operations upon human beings. The honor of being sponsor for the bold experiment has been unanimously awarded to him. Too far advanced in years himself to profit much in surgical work by the new invention, Warren wielded a powerful and trenchant pen in its behalf, and by the weight of his

* Published in 1837.

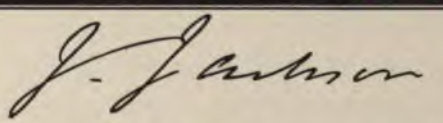
professional and social position, was the means of fixing early its value. All of this brought added glory to Harvard, and is a subject to be dealt with later.

Warren's activity in the literary, social, scientific, and philanthropic enterprises of the times will be more fittingly told later. Sufficient to note here that new blood, well trained faculties, modern methods, and men resolved to establish in connection with Harvard University a medical school which should always maintain the first rank, were now appearing, and were making a great step forward in the notable career of that foundation. Warren served the school until 1847, nine years before his death, which befell May 4th, 1856.

James Jackson was graduated from Harvard College in 1796. While in his senior year he attended the lectures given at the medical school in Cambridge. In 1797 he began his pupilage with Holyoke at Salem. There he spent two years in practical study, and after that nine months in London hospitals. It is worthy of note that while Jackson's course at St. Thomas's Hospital as "dresser," and his study under Cline and Astley Cooper at Guy's, indicate in him a preference for surgery, it is with medicine and medical teaching that his name is linked exclusively. In fact he himself was to become a leader in establishing and advancing a system of medicine new and permanent.

While in London, Jackson studied the novel question of vaccination at St. Pancras Hospital, where Woodville was lecturing upon Jenner's recent discovery. This fact became known in Boston, and when Jackson began practice there in October, 1800, he shared quickly with Waterhouse the honors of being an authority on vaccination in this country.





A. B. 1796; A. M.; M. B. 1802; M. D. 1809; LL. D. 1854.
Professor Clinical Medicine 1810-1812.
Hersey Professor Theory and Practice 1812-1836.
Emeritus 1837-1867.

The prestige thus gained was a fortunate thing for the young physician, and it assured him a financial success from the start. He was one of the foremost defenders of vaccination in the bitter controversies waged against the practice, and to his advice and guidance are due the conviction and confidence which finally resulted in both medical and popular minds. His early marriage (October 3, 1801) to Elizabeth Cabot brought him a wide circle of friends who helped secure his future.

The next year (1802) Jackson's college friend and companion John C. Warren returned from Europe, settled in Boston immediately and entered into the extensive surgical practice already controlled by his father. Jackson and John C. Warren are linked inseparably in much that is best in the history of medical progress in Massachusetts for the first fifty years or more of the nineteenth century. In 1802 Jackson was graduated Bachelor of Physic from Harvard, and in the same year he was appointed physician to the Boston Dispensary. This appointment, together with the appointment as visiting physician to the Almshouse, which he received in 1809, gave him an advantage in offering clinical instruction to medical students, and he improved his opportunities. In 1809 he was granted the Doctorate of Medicine, and was in 1810 elected Professor of Clinical Medicine in Harvard College. This professorship was created especially for Jackson. He held also the position of medical attendant to the Almshouse, the only hospital in Boston then available for clinical demonstrations to any number of students. The necessity for some such privilege led the government of the College to petition the Overseers of the Poor to grant this advantage to their students. This they did upon certain conditions

which were readily assumed by Jackson and John C. Warren. Thus it was that the Medical School was in a position to offer students an inducement to enter Harvard, which inducement proved a powerful factor in increasing the number of pupils, and at the same time materially benefiting the sick poor of the city.

In 1812 Jackson was elected Hersey Professor of Theory and Practice, as successor to Waterhouse, who had held that professorship since the establishment of the school. Jackson continued to occupy this chair until 1836, when he resigned. The following notes explain in a few words the sense of loss sustained by his resignation.

"The Faculty having been informed by Dr. Jackson, Professor of Theory and Practice of Physic, that it is his intention to resign the office of Professor in Harvard University,

"Voted, That the Faculty recognize with gratitude the labours of Dr. Jackson in removing the Medical School to Boston, in obtaining a building for its accommodation, in his lectures in the Theory and Practice and on Clinical Medicine, and in effecting the establishment of the Massachusetts General Hospital and connecting it with the Medical School, and that they learn with deep regret that they are to be deprived of the future services of one who has contributed so much to the reputation and usefulness of the Medical School of Harvard University."

The resolutions, upon motion of Warren, were unanimously adopted.

In the various societies and institutions with which Jackson was associated, he was always zealous for the advancement of the best interests of the profession as a whole, and the medical school in particular. His arguments were convincing, his counsel wise, his course firm but not dogmatic. It is no disparagement to others to say that the defeat of the attempt in 1810 to set up another state medical society, and another



medical school in opposition to Harvard, was due in great measure to the course mapped out by Jackson. The boldness and forcefulness of the views expressed in his treatise on the "Brunonian System" marked him as a critic free from narrowness, and unmindful of the possibility of personal unpopularity. He was the sort of leader around whom students and their elders might gather for guidance and courage in overcoming false prophets. Harvard has never wanted for such leaders, social, political, or medical, and it is largely to this fact that much of her preëminence is due. This is especially true of her Medical School, and Jackson was one of her earliest prophets.

When the building of the Massachusetts General Hospital was projected by the two Warrens the scheme found in Jackson a devoted advocate. The first appeal for contributions was signed by J. C. Warren and Jackson, and has been called the corner stone of that institution. The great advantage and necessity to medical education of such a hospital makes us regret that the bond existing between this hospital and the young Medical School eventually was not strengthened rather than severed. Upon the completion of the Massachusetts General Hospital in 1821, Jackson was given charge of the medical service with his friend and colleague Warren, in the surgical service. Here the teacher found opportunity for his work. "So gentle was he, so thoughtful, so calm, so absorbed in the care before him; not to turn round and look for a tribute to his sagacity, not to foster himself in a favorite theory, but to find out all he could, and to weigh gravely and cautiously all that he found, that to follow him in his morning visit was not only to take a lesson in the

healing art, it was learning how to learn, how to move, how to look, how to feel, if that can be learned. To visit with Dr. Jackson was medical education."*

The method pursued by Jackson in teaching medicine was at variance with the unorganized system then in vogue in this country. He published a full and interesting syllabus of his lectures as early as 1815, and later (1825), in two volumes, his lectures and notes, which are themselves a system of teaching clinical medicine. His keen observation and logical reasoning enabled him to impress upon student and practitioner exactly the points necessary to avoid routine methods in treatment and haphazard customs of diagnosis and prognosis. He was a teacher of the practical as well as the scientific side of medicine; the bedside was his laboratory; he taught the cultivation of nature's gifts, without substitution of artificial devices; his patient was *the man*, not *the disease*. That he succeeded in developing a group of able practitioners and eminent teachers the future pages of this history will show. Jackson cared for little outside the practice of medicine. His ambition was to be the highest and best type of doctor. Unaided and unembellished by the extra-medical honors so frequently acquired by others of his calling, he comes down to us almost without a rival still, the "beloved physician." Today his "Letters to a Young Physician Just Entering Upon Practice" are as helpful, as worthy of study, and as full of practical guidance as they were when fresh from the pen of their author. As a teacher he was conspicuously practical, and the confidence which his methods inspired

* O. W. Holmes.

in his pupils was ever after retained, and invariably led them to turn to him for advice and assistance when in after years unusual cases confronted them. This unbroken bond of sympathy and love between teacher and pupil welded the latter into a bulwark of strength and usefulness against the attacks of those enemies and rivals which beset most medical schools of the time.

Such were the men with whom Harvard University was equipping her medical department in 1810.

TRIBULATIONS AND A FACULTY SCANDAL, 1812.



CHAPTER XV.

TRIBULATIONS AND A FACULTY SCANDAL.

Scarcely had the new school been established in Boston when a storm of the most serious character threatened it, and came dangerously near sinking the ship. Nothing since the introduction of inoculation in 1721 had created so much misunderstanding and controversy among physicians. All the men with personal grievances, professional jealousies, and individual ambitions gathered themselves under one banner and presented a petition to the Legislature on February 18th, 1811. The petition reads as follows:

"To the Honourable the Senate, and the Honourable the House of Representatives, in General Court assembled, this petition most respectfully sheweth:—

"THAT seeing health is a blessing, which sweetens all our enjoyments; and long life that which all men naturally desire, so every thing that tendeth to secure the one or leadeth to the other, is an object worthy the attention of this Legislature.

"And considering, moreover, that of the various methods of obtaining and diffusing medical knowledge, not one is found so effectual and desirable as a friendly and liberal intercourse and honourable associations of its professors; more especially when their end and aim is mutual improvement and public good; and experience has proved that two literary and scientific societies produce more than double the advantage of one—

"Influenced by these sentiments, we your petitioners humbly pray the Honourable the Legislature to constitute us, and such as may hereafter associate with us, a body politic and corporate, by the name and title of the Massachusetts College of Physicians; with such powers, privileges and immunities, as other medical associations of the like nature and views enjoy, under the same denomination, in several states of the union.

"And your petitioners shall, as in duty bound, ever pray.

THOMAS WILLIAMS,
SAMUEL DANFORTH,
MARSHALL SPRING,
NATH. AMES,
WILLIAM ASPINWALL,
JOHN JEFFRIES,
JAMES MANN,
CHARLES WINSHIP,
ABIJAH DRAPER,
JOSEPH LOVELL,
JACOB GATES,
WILLIAM INGALLS."

That is a fine collection of good Boston names.

This petition was referred to the first session of the next General Court.*

At the annual meeting of the Massachusetts Medical Society in June of that year the following remonstrance was directed to be presented by a vote of seventy-one to one:

"To the Honourable the Senate and House of Representatives of the Commonwealth of Massachusetts:—

"The Massachusetts Medical Society, in consequence of an application to the General Court in February last, for the incorporation of a College of Physicians, beg leave respectfully to represent,

"That the said Massachusetts Medical Society was established in November, 1781, with power to elect officers, examine and license candidates for practice, hold estate, and perpetuate its existance as a body corporate. In June, 1782, the society was organized and directed in every way to extend and increase its usefulness. By an additional act of the General Court in February, 1789, authority was given to point out and describe such a mode of medical instruction as might be deemed requisite for candidates previous to examination; which important duty has been constantly attended to, and occasionally revised. By a farther additional act in March, 1803, as the Society was thought too limited to answer the purposes of its establishment, its state was so essentially changed, that the number of its fellows originally limited to seventy, may embrace

* The petition was presented February 12th, 1811, and committed to Dr. Kittridge of Andover, Mr. Lincoln of Worcester, and Mr. Mellen of Cambridge. This committee reported February 18, 1811, and their report was adopted.

all respectable physicians and surgeons resident in the state; and that district societies may be established in such places as will facilitate medical improvement, and prevent the inconvenience of applying in all cases to the censors in Boston for an examination.

"In consequence of this provision, several district societies are formed and are in a prosperous condition, cultivating medical science, and qualifying candidates, in various parts of the Commonwealth. It has been the constant endeavor of the society, without reference to local or political considerations, to admit the most respectable practitioners in every section of the state, and they are desirous to elect all others of known talents who, by accident or from any other cause, are not admitted.

"The number of candidates licensed for practice by the society is more than eighty, all of whom, as well as all bachelors of medicine in Harvard University, may claim admission as fellows of the society, after three years' practice.

"The present number of fellows exceed two hundred. Publications of important cases communicated to the society; of a Pharmacopoeia, which is now in general use; and of Dissertations read at the meetings, have been made as often as the funds would possibly admit; committees have been appointed to investigate the nature, causes and cure of epidemics, and the result of their inquiries communicated to the publick. The greatest harmony has distinguished their proceedings. No mention was ever made, as has been insinuated, of regulating fees in practice. The sole object of the society has been to promote the design of its institution, and the fellows have been led to believe by the constant patronage and support of the Legislature, as well as the public voice, that their conduct has been approved.

"It is scarcely necessary to remark, that, from the state of medical science, at the incorporation of the society, its progress, for several years, was slow, and that it was less useful than could have been wished; but by the aid and co-operation of the flourishing medical school at the University, it is at this time in a most prosperous state; and it is the united endeavor of all to promote medical instruction, and discourage unworthy practices.

"It is found on examination that the petition on the files of the General Court, for a College of Physicians, is for similar powers and privileges with this society, on the ground, that 'two literary and scientific societies, would produce more than double the advantages of one.'— The society presumes not to dictate to the Legislature on this important subject, but they beg leave respectfully to offer an opinion, that the establishment of such an institution, can effect no object, not accomplished by existing societies, and would be so far from promoting a laudible and useful emulation, that candidates rejected by one society would resort to the other, with the greatest hopes of success, whatever might be their qualifications for the proper exercise of their profession.

Hence would arise disagreements and animosities, which in other parts of the United States (particularly in Philadelphia at a former period, and very recently at New-York) have been injurious to the profession and to the public. Such animosities were threatened in the infancy of this establishment, by a supposed interference of Harvard College with the rights of the society, and would have produced the most unhappy effects, but for the repeal of an exceptionable article in that establishment, and the accommodating conduct of those who at that period were the guardians of science and the patrons of the healing art.

"From these considerations, and from other circumstances which the Medical Society are prepared to state, they have thought it an incumbent duty to request that the prayer of the said petition should not be granted, and they as in duty bound will ever pray.

"In behalf of the Society,

"JOHN WARREN, President.

"Boston, June 5, 1811."

The action of the Legislature referred both petitions and remonstrance (June 21st,* and 22nd,§ 1811) to the next General Court. Immediately there began one of the greatest struggles, on the part of Harvard College, connected with her history. The success of the petitioners meant another medical school in Boston; a school free from the binding obligations of a University committed by tradition and principle to maintain a high standard of education; a school free to use methods for attracting students which similar conditions in Philadelphia and New York proved could only result in failure and disgrace; † a school founded under the auspices of a

* In the Senate.

§ In the House. Concurrence.

† David Hosack, of New York, in a pamphlet of 1811, says: "Prior to 1791, owing to similar dissentions with those at present existing in New York, there were two distinct Medical Schools in the city of Philadelphia, viz., that of the College of Philadelphia, and another connected with the University of Pennsylvania; and that, before they became united under the University of the state, they mutually injured each other, but neither became respectable. An union was at last effected by combining the talents of both in the same institution. Since that event, the Medical School of that city has acquired such celebrity, that in the number of its

medical society likely to foster a standard of medical education of a lower grade than that established by the Massachusetts Medical Society, and bound to meet opposition from the latter body. Therefore, when the hearing before the committee of the legislature opened in February, 1812, we find David Townsend, John Warren, Thomas Welsh, Aaron Dexter, Josiah Bartlett, William Spooner, and Benjamin Shurtleff present as a committee from the Medical Society to defend the remonstrance.* Benjamin Waterhouse, Professor of Theory and Practice in the University, Leonard Jarvis, Edward Whitaker, Daniel Thurber, and Nathaniel S. Prentis had added their names to the petition for the new College, while Thomas Williams, Samuel Danforth, Nathaniel Ames, William Aspin-

pupils it is at present only surpassed by the University of Edinburgh. It has not only been a source of honour and emolument to its Professors, but has also been the means of advancing the literary character of the state of Pennsylvania, and of increasing the wealth of the city of Philadelphia.

"It is calculated that at least one hundred and twenty-five thousand dollars are annually expended in Philadelphia by the medical students resorting to that city from different parts of the union."

In New York the charter granted to the College of Physicians in 1806 set up a rival to the Columbia College Medical School, established 1769. The story of that medico-political controversy is very grievous. The records of the Regents of the University of New York, April 1, 1811, say:

"Propositions have been made to the committee to re-model the institution, with a view of rendering its operation more simple, and of introducing into it several of the professors of the medical school in Columbia College, and other eminent and distinguished individuals; this proposition has been viewed by the committee in the most favourable light, as it may extinguish the feuds existing among the present professors of the College of Physicians and Surgeons, and as it will, in all probability, be the means of uniting the two schools."

*General Brooks, Childs of Pittsfield, and Kittredge of Andover, did good work against the petition.

wall, and John Jefferies, disapproving of the politics infused into the controversy, withdrew their support and took no part in the hearing. James Jackson represented the Medical School of the University.

Governor Gerry had this to say at the beginning of the session:

> "Many institutions in this Commonwealth, which have promised great benefit to the publick, would have met with more success, had similar co-operations been established. When only one of any kind is permitted it too frequently happens, that a majority of individuals composing it indulge their private views and interests, to the exclusion of men, of the most enlarged, liberal, and informed minds; and thus destroy the reputation and usefulness of the society itself. The multiplication of such institutions, has a tendency, not to prevent this evil, which is an opiate to genius, but to produce a competition, and to promote in the highest degree the utility of such establishments."

The principal points introduced into the arguments were: That the present state of medical science in this country required greater authority than that already enjoyed by existing medical institutions; that the powers already possessed were abused or neglected by those in charge of the employment of such privileges; that the individuals favored by appointment in establishments holding these powers were incompetent, or exercised their advantages for the benefit of a few rather than for the whole; finally that a new society or school would serve as a healthy stimulus to existing ones to do better, and the rivalry created would increase the number of medical students in the commonwealth.

It is impossible to give anything like a correct idea of the bitterness with which this affair was conducted. Pamphlets, private letters, newspapers, social and political influences, as well as private solicitations were all employed for and against

the bill. The corporation of Harvard College* "Voted, That the Medical professors be requested to state in writing what interposition of the Corporation may be useful in the case mentioned ('the petition for a College of Physicians which may injuriously affect the Medical Institution of the University'); and that the President and Mr. Lowell be a committee in behalf of the Corporation to make such representations to the General Court as they may think the case may require." The result of the first hearing was in favor of the petitioners (it is said by a bare majority) being allowed to bring in a bill. This committee report was accepted in the Senate but was not accepted by the House. An attempt to reconsider the latter's action opened up a debate of over three hours which was animated and interesting. The report of the Committee stated that nothing developed to support or justify the numerous insinuations and statements which had been circulated in print and out-door conversation, tending to implicate and injure the existing Medical Society; that it was clearly demonstrated, though attempts were made out-doors to make it a party question, that the institution asked for was unnecessary, and that if granted would produce great dissension among the Faculty, and be highly injurious to the community.†

When the question came to a deciding vote there were 195 for the petition, and 211 against it.

Now for the closing chapter of the public controversies which beset the early life of our Alma Mater:

* May 7, 1811. Corporation Records.

† The above facts are from the Legislative Records, the Boston Newspapers and Josiah Bartlett's address of 1810-1813.

Instances have already been related in which the lack of harmony between the Professor of Theory and Practice and his associated professors was very disturbing. The removal of the School from Cambridge and the election of Jackson as Professor of Clinical Medicine did much to intensify the strained relations. Matters came to a crisis at a meeting of the Corporation November 8, 1811, when John Warren, Dexter, John C. Warren and Jackson presented a letter stating in particulars the conduct of Waterhouse, and asserting that they were unwilling to have further intercourse with him. The Corporation records for the following five months contain many references to the subject. Finally, at a meeting of the Corporation, March 11, 1812, it was voted to postpone any further consideration of the matter "to give opportunity to Dr. Waterhouse to take measures on his part to restore harmony and confidence between the other medical professors at the Medical School of the University and himself." The good offices of the Corporation were of no avail as is shown by the following minute:

"April 22, 1812.

"The Corporation considered the Letter of the Medical Professors containing several allegations respecting Dr. Waterhouse which the said professors say necessarily prevent their intercourse with him. On the subject of which letter the professors writing it and Dr. Waterhouse have been fully heard before this Board.

"Voted. On the first article. It appears that Dr. Waterhouse supported the designs for establishing a College of Physicians; that he signed and advocated a petition for it, which petition requested powers that would have authorized the establishing a Medical School and would have been injurious to the Medical School of the University.

"The Corporation have not (direct) evidence that a school under the patronage of the College of Physicians was intended by Dr. Waterhouse.

"But the circumstances under which he advocated the College fully authorized his Colleagues to institute a complaint against him on that ground; and he continued to advocate the College of Physicians after he

had knowledge of the institution of this complaint and a hearing thereupon before the Corporation.

"Upon the second Article it appears to us from the evidence adduced that Dr. Waterhouse did, without any reasonable provocation publish false, scandalous, and malicious libels against the Professor and Adjunct Professor of Anatomy and Surgery, which had a tendency to injure their characters, offend their feelings, and to diminish their usefulness in the University;

"Therefore it appears to the Corporation that the conduct of Dr. Waterhouse has destroyed all intercourse between himself and the other Professors of the Medical School of the College, and that the Interests of the College require that he cease to hold the office of Professor of the Theory and Practice of Physick in the said College, and that the President, Judge Davis, and Dr. Eliot be a Committee to report a Draught of the Vote of the Corporation to be passed for that purpose."*

This draught was presented and reads as follows:

"At a meeting of the President and Fellows of Harvard College, holden on the twentieth day of May in the year 1812 by adjournment from the eighteenth day of the same month.

"Present: The President, Dr. Lathrop, Chief Justice Parsons, Dr. Eliot, The Treasurer, & Mr. Lowell.

"The President having received a letter dated Novem. 11, 1811, subscribed by the professor of Anatomy & Surgery, the Professor of Chemistry, the Professor of Clinical Medicine, the Adjunct Professor of Anatomy & Surgery & the Adjunct Professor of Chemistry, containing allegations respecting Dr. Benjamin Waterhouse, the Professor of the Theory & Practice of Physic—the tenor of which here follows:

"'We, the undersigned medical Professors, have, for some time past, suffered a great embarrassment in the management of the interests of the Medical Institution of Harvard University. This embarrassment has arisen from want of confidence on our part in the professor of the Theory & Practice of Physic. We have not believed it altogether safe to engage in any free discussion respecting the affairs of the Institution with the Professor.

"'We will not disguise that, in addition to this want of confidence, our feelings have been much and very unpleasantly affected by the conduct of the above mentioned Professor towards ourselves. The circumstances, which have produced these sentiments & feelings, have been

*Those present at the meeting were the President, Chief Justice Parsons, Judge Davis, Mr. Lowell, Judge Wendell, Dr. Lathrop, Dr. Eliot. Mr. Lowell did not vote, as he had personal grievances against Dr. Waterhouse.

of the following description, viz: That 1st., the above mentioned Professor has been engaged in the support of plans inimical to the interest of the medical Institution. 2d. In his intercourse with us that professor has, as we believe, been guilty of duplicity & want of varacity, & 3d., He has, as we believe, repeatedly published in the newspapers without his proper signature, suggestions and insinuations injurious to our characters & highly offensive to our feelings, & such as are designed to diminish our usefulness in the University.

"'Under these circumstances, it has appeared to us to be inconsistent with our honour, as it is with our feelings and, in some measure, dangerous to the welfare of the Medical Institution, to have intercourse with him; and we have, therefore, resolved that we cannot, at present, hold any further communication with the above mentioned Professor.

"'All which we have thought proper to lay before the Honourable & Reverend Board, over which you preside'; Which letter the President, afterwards, at a meeting of the corporation held Novem. 18th, in the same year, laid before them, & they thereupon appointed the 11th day of Decem. the next at the Hall of the Union Bank for hearing the parties upon the said letter, & requested the President to give Dr. Waterhouse notice thereof & a copy of the said letter. On the said 11th day of Decm., the Corporation met; and the parties appeared before them (Dr. Waterhouse having received a copy of the said letter) and were heard on the subject of the allegations in said letter: and at the request of Dr. Waterhouse he had time given him to be further heard viz. till the 25th. day of January 1812. On which day there was no meeting, the President being absent on a journey—& the next meeting was holden Feby 7, last past, when Dr. Waterhouse stated that he was not ready for a final hearing on his part and the corporation adjourned to the 17th. of the same Feby., when he was heard, & requested time to be heard further, which was granted; & for that purpose the corporation adjourned to the 24th. of the same Feby. when Dr. Waterhouse was fully heard; and at another adjourned meeting of the Corporation holden on the 27th. of the same Feby. at the Hall of the Union Bank—the Professors who subscribed the letter above cited, were heard in reply to Dr. Waterhouse's defense, he being present; after which, neither of the parties requested any further hearing;—from which time the corporation adjourned to the 11th. of the last March to consider the allegations, evidence & observations of the respective parties, and after some attention to the subject at the meeting on that day the Corporation further adjourned to give opportunity for Dr. Waterhouse to take measures on his part to restore harmony and confidence between the other Professors of the Medical School of the University and himself.

"At a meeting holden at Cambridge the 22d. of April last it not appearing that harmony and confidence had been restored, the Corporation proceeded to a full and deliberate consideration of the allegations

aforesaid & the evidence & observations of the respective parties; when they passed votes of the tenor stated in the result of the next meeting & adjourned, with a view at said next meeting of deciding ultimately on the conduct of Dr. Waterhouse & on his relation to the University. On the 18th. of this present May the Corporation met and resumed the subject aforesaid when they came to the following result:

"1st. It appears that Dr. Waterhouse from the beginning supported the design of erecting by legal incorporation a College of Physicians; that he signed & advocated a petition for said College, which petition requested power, that if granted would have authorized the establishment of a Medical School of the University. The Corporation have not direct evidence that such a school, under the patronage of the proposed College of Physicians, was intended by Dr. Waterhouse; but the circumstances under which he advocated that College with such authority fully authorized his colleagues to institute a complaint against him on that ground; and he continued to advocate it; after he had knowledge of the institution of said complaint, & a hearing thereon before the Corporation; nor did he ever withdraw his name & support from the application made to the Legislature for a College of Physicians with power adequate to the establishment of another Medical School, notwithstanding, that at his inauguration he 'declared and promised in writing that he would not only endeavour the advancement of Medical knowledge in the University, but consult its prosperity in every other respect.'

"2d. It appears from the evidence adduced that Dr. Waterhouse in & respecting his intercourse with his colleagues evinced a want of veracity—first by asserting that he had no knowledge of the plan for extending the Medical School to Boston, until a memorial for that purpose was sent to him from Cambridge; when it was proved to the Corporation that he had previous notice of that plan; *secondly* by affirming in his letter to the Hon. Thomas Dawes that two circular letters of the professors had been issued without his knowledge, when it was proved to the corporation that the first circular letter was emitted with his knowledge & approbation. 3dly. It appears from the evidence adduced that Dr. Waterhouse did in the New England 'Palladium' of May 3, 1811, over the signature of 'Novum Organum' without any reasonable provocation, publish a false, scandalous & malicious libel against Professor & Adjunct Professor of Anatomy & Surgery, which had a tendency to injure their characters, was of a nature to be highly offensive to their feelings & to diminish their usefulness in the University; & subsequently to that publication in a piece published by himself in the 'Chronicle' of June 17, 1811, over the signature of 'Moderation' he evidently, by implication which cannot be misunderstood, charges the other Professors of the Medical School with a neglect of their official duties.

"It therefore appears to the Corporation that harmony & confidence are destroyed between Dr. Waterhouse & the other Professors of the

Medical School, of which Dr. Waterhouse is the culpable cause; & that the interest & reputation of the University require that he be removed from the office of Professor of the Theory & Practice of Physick.

"Wherefore, Voted, That Dr. Benjamin Waterhouse, Hersy Professor of the Theory & Practice of Physic in Harvard College be & he hereby is removed from the said professorship & that the Treasurer be directed to pay him his Salary to the expiration of the present College quarter & no longer.

"Voted, That the President be requested to furnish Dr. Waterhouse with a copy of the above vote & to preserve on the files of the Corporation the papers produced by either party.

"Note, Mr. Lowell declined to give his vote on the question of removing Dr. Waterhouse, and Judge Wendell, though absent at this meeting, sent to the President a note of the following tenor:

"'Sir:— "'Tuesday P. M. May 1812.

"'As I fully agree to the result of the Corporation as was directed last evening to be fairly copied & presented to them on this afternoon. But as now by your mornings billet is postponed to a future day I presume I may set out on my journey on the morrow, after requesting that respectable body to give Dr. Waterhouse as long a space for repentance as in their wisdom and mercy to his family they shall think proper.

"'I am respectfully your humble servant,'"

James Jackson, at the age of thirty-five, was elected Professor of Theory and Practice, September 15, 1812. His letter of acceptance is interesting:—

"Rev. John T. Kirkland, President of Harvard College.

"Dear Sir,—

"I have received your's of the 6th inst, informing me that I have been appointed Professor of the Theory and Practice of Phisic.

"I wish now to inform you that, with a high sense of the honor conferred on me, I have determined to accept the office. It is proper, however, that I should state what can hardly have escaped your own reflection that some time will be requisite for preparing myself for performing the duties of this office; and that, while I shall exercise all possible diligence in so doing, I cannot promise myself to deliver any course of lectures to the undergraduates during the ensuing year; nor even to deliver a full course to the medical class in the winter which will follow that now approaching.

"I am Sir, very respectfully

"Your obedient servant

"JAMES JACKSON."

Jackson was required to continue his duties as professor of Clinical Medicine until the appointment of his successor. The salary of the Professor of Theory and Practice was fixed at five hundred dollars, including the income from the legacy of Mrs. Esther Sprague. Jackson was inducted into office November 6th, 1812.

The second circular issued by the Medical School is dated Boston, June 1, 1811, and says:

"The general approbation of this new arrangement (the establishment of the school in Boston) has surpassed the hopes of its most sanguine advocates,—the number of students attending the lectures having been about double that of any former period; while the interest displayed in the prosecution of their studies, and the satisfaction expressed, on a review of them, at their opportunities and acquisitions, have been highly flattering and animating to the professors.

"The valuable library, founded by Ward Nicholes Boylston Esq. . . contains about seven hundred volumes, selected with great care, relating to all the branches of medical science.

"The fee for attendance on the anatomical lectures has been reduced, (From $25. to $20.) in order that it might not exceed that established in other places.*

"The professors avail themselves of this opportunity to remark, that in their arrangements for the medical school, they have never been guided by the hope of pecuniary compensation. On the contrary, they do not expect to receive any reward of this nature, which will compensate for the sacrifice of private practice to their official duties. In the anatomical branch, which, as is usual, is more fully attended then the others, the expenditures have actually exceeded the receipts, even independently of the cost of a valuable collection of preparations, and without estimating the labour of the professors. They are not discouraged under this state of things.

"They feel that circumstances have placed them, however unmeritedly, in a situation important to the interests of the medical science in this part of the country; and they are determined to fulfil the duties of it to the utmost of their ability, so long as they receive the approbation of the respectable portion of the medical community of this state; for the support of the faculty, and the exertions of the professors are equally

* Yale Medical School incorporated 1810, fees for full course $50.
In New York Medical School, fees for course $40, in 1811.

necessary to the existence and success of an ample and efficient school of medicine in this section of the United States.

"The government of the University have determined that in future the degree of Doctor of Medicine shall be conferred on the same conditions that the degree of Bachelor in Medicine has hitherto been given. Candidates are required to have studied two years with some respectable practitioner; to have attended two of each of the courses of medical lectures; and then, at the end of the third year, they may present themselves for examination.

"Bachelors in Medicine of this University will be entitled to the degree of Doctor in Medicine."

The following statutes were adopted, in 1811, by the Corporation for the guidance of the Medical Department:

"STATUTES, &c."

"I. CANDIDATES for the degree of Doctor in Medicine must attend two courses of the lectures of each of the medical professors in this University, and also their clinical practice in medicine and surgery during the lectures. They must study two years under the direction of a regular practitioner of medicine, and allow a third to elapse before they can be examined. Provided, however, that in extraordinary cases the medical professors, with the consent of the President, may dispense with the attendance on one course of lectures on such conditions as may be thought reasonable.

"II. Those who have not received a university education, shall satisfy the President and medical professors of their knowledge in the Latin language, and in experimental philosophy.

"III. The candidates shall enroll their names with the Secretary of the Faculty of Medicine, immediately after the termination of the winter courses of lectures. The examinations will commence on the second Wednesday following, and be continued from time to time until all the candidates have been examined in Anatomy, Surgery, and Midwifery; Theory and Practice of Medicine; Chemistry and Materia Medica; and Clinical Medicine. In extraordinary cases, the faculty, with the consent of the President, may examine at other periods.

"IV. Each of the candidates approved shall prepare an inaugural dissertation on some medical subject, which dissertation having been submitted to the Faculty of Medicine, at least fourteen days before, shall be read and defended at a publick examination in the Philosophy Chamber at Cambridge, on the Friday preceding the last Wednesday in August, in the presence of the Governors and Instructors of the University, and such members of the Massachusetts Medical Society, and other individuals, as may choose to attend.

"V. If the faculty approve the dissertation, they shall then signify their approbation of the candidate to the President, to be laid before the SENATUS ACADEMICUS, who finding him entitled, will admit him to receive the degree of Doctor in Medicine, at the ensuing Commencement.

"VI. All those who have heretofore obtained the degree of Bachelor in Medicine, at this University, will receive the degree of Doctor in Medicine.*

"JOHN T. KIRKLAND, President."

"Cambridge, March 21, 1811."

"NOTE. The lectures designed for medical students, are given in Boston, under the direction of the University, during the winter, in the following branches, viz., Anatomy, Physiology, Surgery, and Midwifery; Theory and Practice of Physick; Chemistry and Materia Medica; and Clinical Medicine. At the same place is the clinical school in Medicine and Surgery. The lectures designed for the Senior Class at the University, are given in the spring at Cambridge. It is recommended, but not required, that Medical Students who have not received a College education, should attend the lectures on Natural and Experimental Philosophy, which are given at Cambridge, three or four times in a week from April to August. Candidates for a medical degree are also advised to attend the course on Botany, which is given at Cambridge during the Spring and Summer. The fee to be paid for the degree of Doctor in Medicine is twenty dollars. The Secretary of the Faculty of Medicine is John C. Warren, M. D., Adjunct Professor of Anatomy and Surgery."

Some idea of the small beginnings of the school even as late as 1812 is gathered from the vote of the Corporation in May (20th) of that year authorizing the expenditure of $170.00 for articles necessary to fit out a laboratory suitable to the needs of the Professor in Chemistry. Prior to this Dexter had supplied the lectures at Cambridge from the collection at Boston and from his own apparatus. Early in 1813 it was thought expedient to allow one of the courses of lectures required of candidates for a medical degree to be attended in some other institution, and in July (19th) of the same year the Medical Faculty petitioned the Corporation that the law

* There were forty Bachelors of Medicine who became Doctors of Medicine by virtue of this vote, March 11, 1811.

annexing the duties of the Professor of Clinical Medicine to that of the Theory and Practice of Medicine be rescinded, and that the fees for degrees might go to the Professors of the Faculty. These requests were granted by the votes of the Corporation, August 12, 1813:

"That the fees paid for medical Degrees in time to come till further ordered be paid to the Medical Professors to be applied by them for defraying the expenses attending the delivery of their lectures.

"That the amount of fees received in time past be appropriated to the purchase of Books and preparations or instruments useful to the Medical Institution under the direction of the Medical Professors.

"That statute No. I of the printed statutes of the Medical Institution be altered so as to read as follows:

"'Candidates for the Degree of Doctor of Medicine must have attended two courses of public Lectures of the Professor of Anatomy and Surgery, of Chemistry and Materia Medica, Theory and Practice of Medicine in some University or College, one course at least shall be in Harvard University.'"

The custom of a committee of the Overseers of the University visiting the Medical School semi-annually and receiving the reports of the Medical Faculty upon the conditions existing in that department was inaugurated in 1812-13, and was the means of more closely uniting the school with the college.

Ever since the removal of the Medical School from Cambridge, more or less dissatisfaction had existed among the students there over the loss of dissections. The condition is discussed in a letter from President Kirkland to John Warren, under date of March 28, 1814:

"Dear Sir:—

"The present senior class contains a pretty large proportion of persons, rather young men than youths. I apprehend that they feel much chagrinned & disappointed at the information that the anatomical professors will not undertake to give them any dissections;—they cry out for seeing your operations on *one recent* subject at least. I am pretty well satisfied that there will always be this difficulty, and I propose that

the Corporation shall consider of some other arrangement against the next year. In the mean time I wish to get over this in the best manner. I shall be in town this day and will call at your house at *noon*. . . . "

It was voted on December 19, 1814, that the Professors of Anatomy should give a full course of Lectures in Anatomy with demonstrations in anatomy without dissections of human subjects, and that "till further order of the Corporation they receive $700.00 per annum for the above services." The question came up again at the meeting of the Corporation, February 20, 1815:

"The Corporation taking into consideration the report of the Committee appointed to confer with the Professors of Anatomy and Surgery respecting their Lectures to the undergraduates, regret that the Professors should have entertained views of the terms and conditions on which the medical lectures were extended to Boston so different from those of the Corporation and the other College Board, and from those which the votes and proceedings in this measure and the circumstances of the transaction appear to this body to have been intended to produce.

"The Corporation in pursuance and execution of this vote passed 13th July 1810, respecting the removal of a part of the medical lectures to Boston, Voted as follows:

"1. That it be the duty of the Professor and Adjunct Professor of Anatomy and Surgery at the usual time beginning the first Monday in April to deliver to students and others authorized to attend, at Cambridge, a course of Lectures not less than twenty-five in number on the subjects of their professorship with demonstrations from preparations and adapted to give general scholars not intended for the medical profession an acquaintance with the structure of the human frame.

"2. Voted That in consideration of this service the Professors receive seven hundred dollars per annum including their present salary, they furnishing such preparations not in the possession of the College, as may be required for illustrating their lectures.

"3. Voted. That this arrangement respecting this department of instruction and the increase of the salary, be subject to alteration after the present college year, if it shall not be found to answer the expectation of the Corporation and Professors.'"

At a meeting on April 14, J. C. Warren was requested to

deliver the Lectures in Anatomy and Surgery agreeable to the above votes. Spring and summer courses of Lectures were given at Cambridge with the exception of the courses in Botany, recently established.

REMOVAL TO MASON STREET.

THE MASSACHUSETTS MEDICAL COLLEGE.

1816.

CHAPTER XVI.

REMOVAL TO MASON STREET.

THE MASSACHUSETTS MEDICAL COLLEGE.

—1816—

The growth of the School in Boston was so rapid and its value to the community so apparent, that the Faculty felt justified in seeking public assistance through a legislative grant. This idea took form in the following petition:

"January 10, 1814.

"Petition presented to President and Fellows of Harvard College from the Medical Professors.

"The lectures in the various branches of medical science have now been delivered in Boston to students of medicine four successive years. The result has justified the expectation of the Government of the University that the advantages to the Students would be increased by the delivery of the lectures in this place. The courses occupy double the period which was allowed to them at Cambridge, and many conveniences are afforded by which more perfect and practical instruction is given to the pupils in the Metropolis than could be given to them in Cambridge.

"Under these circumstances the Subscribers are authorized to presume that the plan of delivering the medical lectures in Boston may be considered as permanently established.

"This has led them to consider what permanent arrangements are necessary to promote the utility and respectability of the Establishment.

"Hitherto the Subscribers have provided for themselves the apartments necessary for the delivery of the lectures and for other purposes connected with them. These have been the most convenient it has been in their power to obtain. In doing this they have incurred considerable expense annually from which they were entirely exempt when delivering their lectures at Cambridge only, and even by this it has not been possible for them to obtain all the advantages which are desirable in respect to the apartments which they occupy. To afford to them and the Students all the advantages which are to be wished for, it is necessary that

a building be provided conveniently arranged for the lectures and for the other purposes of medical Instruction.

"Although such a building would not be very expensive, yet it would be too much so for the Subscribers to erect it.

"Whatever they may hope as to the future, their compensation is very inadequate to their labour and to their interruption of their pursuits occasioned by the attendance on their professional duties. Besides this their interest in the Institution is of a temporary nature only, while that of the University is permanent.

"The Subscribers beg to call the attention of the Corporation to the subject with a hope that they will be able to devise some means of effecting the purpose desired. In other States of the Union very liberal aid has been granted for similar purposes by the respective Legislatures. May it not be confidently hoped that the Legislature of this Commonwealth will not fall short of others in favoring the instruction in a branch of knowledge important to every member of the Commonwealth? All which is most respectfully submitted.

"John Warren.
"Aaron Dexter.
"James Jackson.
"John C. Warren.
"John Gorham.

"To the Honorable the Senate and the Honorable House of Representatives in General Court assembled.

"The President and Fellows of Harvard College respectfully represent

"That in the year 1783 a Medical Institution was established by this Corporation for the purpose of giving Instruction by Lectures and suitable experiments to students in medicine.

"These lectures were delivered in Cambridge in the buildings belonging to the University, till the year 1810. At this latter period it was concluded that the public interest could be promoted by the extension of the Medical Institution to Boston, and it was resolved that the lectures designed for Students in Medicine as distinct from the resident members of the University should be delivered in that town, in order to give those students an opportunity of seeing actual diseases and the treatment adopted in their cure; of witnessing surgical operations, and attending other objects deemed indispensable to the education of those who are destined to take charge of their fellow men.

"The Professors were accordingly required to give full courses of lectures in Boston. As no funds could conveniently be appropriated by the University to meet the expenses incident to this extension of the Medical School, the Professors were under the necessity of supporting the expenses of the new establishment in Boston; and those arising from the delivery of lectures, as well as from procuring preparations for illustrating the Structure of the human body, and other things necessary for

the purpose of instruction; which expenses amounted to about one thousand dollars yearly. Notwithstanding these heavy expenses of the Institution to which the moderate receipts bear no just proportion, the accommodations for the lectures and for other objects are very inadequate; especially the collection of Preservations mostly obtained from Europe at great cost is very insecurely placed as respects danger from fire; and much inconvenience is experienced for the want of an ample and safe laboratory for Chemical operations and the performance of experiments for analysis and ascertaining the nature of the manual productions of our own country.

"In order to the removal of these impediments to the usefulness of an institution important to life and death, and to increase its means of improvement; Your petitioners submit to the Legislature the expediency of affording a sufficient sum for the erection of an edifice to contain accommodations for lectures in Anatomy and Surgery,—in Chemistry and the Materia Medica, on Botany and other branches requisite to a complete Medical Education. Also for the safe deposit and convenient exhibition of the cabinet of Anatomical preparations, and for a cabinet of minerals, especially those of our own country; and for a medical Library; and if your wisdom see fit for a provision for the supply and regular annual augmentation of such cabinet and Library.

"Your petitioners deem it their duty to make known to your honorable bodies these deficiencies of our Medical Establishment lest they should appear to think the Legislature of Massachusetts less willing to assist Medical education than the legislatures of our sister States.

"There is no Medical Seminary of equal importance in the United States which has not experienced the liberality of the State Governments. The Legislature of the State of New York did in the year 1807 grant to a similar establishment in that state the sum of twenty thousand dollars to be appropriated to purposes of the nature mentioned in this petition; and in the year 1810,—influenced as they say in their Act, by the opinion that the Botanical Garden near the City of New York would become a great public benefit by being applied to *'promote Medical Sciences'* in that State, did also grant to be raised by Lottery for the purchase of said Garden the sum of Seventy-four thousand two-hundred sixty-eight dollars, forty-five cents, and at another time the same Legislature did grant for a similar purpose ten thousand dollars in Cash, besides smaller sums.

"The Legislature of the State of Maryland granted to the Medical School of that State a Lottery which has yielded a very large sum, sufficient to enable them, as they state in a recent publication, to provide for their Medical College the most extensive and honorable accommodation of the kind in the United States; and a great number of the tickets of the said Baltimore College Lottery were sold in this State; by which means the good people of this Commonwealth were taxed for the support

of an establishment in a distant state; while that of their own is destitute of indespensable means.

"The state of New Hampshire so far behind Massachusetts in wealth and population, has appropriated seven thousand dollars in cash for a building for the use of the Medical School in Hanover, which building has been completed.

"In the states of Pennsylvania and Connecticut public grants of money have been made for the benefit of the Medical Institutions in each of those states.

"The liberal endowment of these medical schools in other States whilst our own is left entirely to its own resources, has a tendency and does actually operate to withdraw a great number of Students of Medicine from the Commonwealth of Massachusetts and its Medical School, which is thus deprived of the means of its support; and its Professors, though of great and acknowledged merit in their respective departments, and submitting to heavy and arduous exertions, are thereby discouraged.

"By a publication made some time since it appears that the state of Pennsylvania annually derives from the Medical Students who resort there for Instruction more than one hundred thousand dollars, of which a part is paid by those students belonging to the State of Massachusetts.

"When your honorable Body shall consider that the proper Instruction of Students of Medicine is an affair that does not so much concern the profession of Medicine as the public at large, and that it has been so received by the Legislature of other States in the Country, and by the nations of Europe, in all of which Medical Institutions are established at the public expense, and in some even the professors are supported from the public funds; moreover that the assistance craved from the public will be a suitable concurrence with those generous and public spirited bequests to the Medical Institution at Harvard College, but whose private bounty must fail of being effected to its ends unless it be aided by the bounty of the Legislature.

"Your Petitioners hope and pray that you will enable your petitioners to command a sum to be applied to the objects above stated not less than twenty thousand dollars, either by a grant of money or by a lottery, or of Public Lands in sufficient quantity to justify the University in becoming responsible for such a sum.

"Your Petitioners further represent that there is pressing occasion for another College to be erected for the habitation of Students, the number of the students much exceeding the capacity of the present College to receive, so that the greater part of the Freshman Class are obliged to live in Chambers in the Town, by which they are subjected to a considerable expense and are otherwise placed under disadvantages in attending College Examinations and Duties and receiving the benefits of its inspection and discipline.

"In consequence of this deficiency of apartments resident Graduates

pursuing their Studies at the University cannot be accommodated within the walls without excluding Undergraduates, and are thus often discouraged from availing themselves of the advantages held out for that class of Students at the University.

"Your Petitioners request assistance in procuring another College in such way as you shall deem wise and proper.

"Your Petitioners observe that the State of the Finances belonging to the Institution does not admit of any expenditure for the objects here proposed. That your petitioners have been obliged to apply a large portion of these funds, not less than fifty thousand dollars, to the erection of a necessary Edifice as well as further sums to the repair of the former buildings, while the circumstances of the times have materially diminished the College Treasury.

"And your petitioners as in duty bound, shall ever pray, etc."

When the petition was presented to the Legislature, the trustees of Bowdoin and of Williams Colleges * presented petitions for pecuniary aid for their Colleges. The friends of the three colleges joined forces, and in February, 1814, an act was passed "for the encouragement of literature, piety, morality, and the useful arts and sciences," by which a bank tax was appropriated for the term of ten years, to be divided among the three colleges in certain specified proportions. Harvard's share amounted to ten thousand dollars annually. In the terms of the Act it was specified that one-fourth part of the amount received annually was to go "towards the partial or total reduction of the tuition fees of such students, not exceeding one-half of the whole number of any class, who may apply therefor, according to the judgment of the Corporation." This was the only direct grant of money which had been made by the state to the College since 1786.§ The number of medical students at Harvard at this time (1814) was 120:—fifty at the Medical School, and seventy at Cambridge.

* Then within the Commonwealth of Massachusetts.

§ Quincy, "History of Harvard College."

At a meeting of the President and Fellows of Harvard College, March 21, 1814, the following resolutions were passed:

"Whereas in a petition to the General Court at the last session representing certain exigencies of the University inviting legislative aid, the Corporation did at the request of the medical Professors specifically state the necessities of the Medical Institution, and ask a grant to an amount of not less than twenty thousand dollars to be applied for the erection of an edifice to contain accommodation for Lectures in Anatomy and Surgery, on the Theory and Practice of Physick and Clinical Medicine, on Chemistry and the Materia Medica, on Botany and the other branches requisite to a complete Medical Education; Also for the safe depositing and convenient exhibition of the Cabinet of Mineralogy, especially those of our own Country, and also for a medical Library, and if the Legislature shall see fit, for a provision for the supply and regular augmentation of such Cabinet and Library. And whereas the Legislature did generously grant for the uses of the University the sum of ten thousand dollars per annum for ten years out of the sums reserved to the Commonwealth from the several Banks within the state, therefore,

"Voted, That twenty thousand dollars be applied to the objects above mentioned including two thousand dollars retained by the Corporation as a fund to defray the expense and repair on such edifice as may be erected.

"Voted. That the Professors of the Faculty of Medicine of the University be a Committee authorized to apply the sum of eighteen thousand dollars to the objects specified, expending the whole or such portions of it as may be judged expedient for the erection of a proper and convenient edifice for the purposes stated; to be paid by the Treasurer of the College as the progress of the edifice shall require. That they are empowered to select a piece of land for the building, to prepare the plans, and to proceed to the erection and completion of the same; communicating their proceedings from time to time to the Committee of the Corporation hereafter mentioned.

"Voted: That the Committee consisting of the aforesaid Professors are authorized to make any arrangements with the Massachusetts Medical Society by which they may have accommodations in the Edifice proposed to be erected in such manner that the Corporation and said Society may hold their respective parts of said Edifice in severalty; provided, however that such arrangements shall not increase the expense of the University.*

*The Massachusetts Medical Society did not deem it expedient to accept the proposition, as it would entail selling the township of land held by them. This would have meant a great loss to the Society.



MASSACHUSETTS MEDICAL COLLEGE

Mason Street, Boston. Erected 1815.

The home of the Medical School from 1816-1847.
The building was so named on account of the donation from the State in 1814.
This name was more or less associated with the School until 1883.
There is no view extant of the White Building of old
Marlborough Street where the School
located in Boston between
1810 and 1816.

"Voted: further: That the President and Mr. Lowell be a committee to exercise in behalf of the Corporation such superintendency over the execution of the foregoing votes as they may think proper; to see that the title of the Corporation to the Land be secured; and the title, form, materials and manner of construction of said edifice be such as may best promote the permanent objects of the Institution and the Interests of the University."

Land was secured on Mason street, near Boston Common, and a brick structure was erected there to which was given the name *The Massachusetts Medical College,* in recognition of the generosity of the Legislature. The school was known by that name for many years after. The building, still in existence, is of brick, 83 feet in length, and 43 feet in breadth. Architecturally it is unique, being oblong, with a pediment in front, and an octagonal centre rising above the roof, and also forming a three-sided projection in the rear. It is surmounted by a dome with a skylight and balustrade which gives an air of quaint elegance to the structure.* The apartments on the first floor were: a spacious medical lecture room, with seats arranged in the amphitheatre style; a chemical lecture room in the centre, with seats similarly arranged; a chemical laboratory; and a library room. In the second story was placed the anatomical theatre, occupying the central part of the building, well lighted by the dome and skylight. The seats here were also arranged in a semicircle with an entrance from above. The dissecting rooms, a large and small one, together with the anatomical museum, occupied the extremities of this same floor. The building was heated by a furnace, while a force pump and cistern in the roof supplied water. There was also

* The building thus described can be seen to-day (1905). The lower story has been converted into a fire engine house.

place in the building for an anatomical museum containing more than a thousand valuable specimens; apparatus and preparations used in chemistry, materia medica and midwifery; and a medical library of some three thousand volumes. The building was completed in December, 1816, and the committee reported that a balance of $641.53 remained from the sum appropriated.

The death of John Warren occurred on the 4th April, 1815. A meeting of the Corporation was called for the next day, when condolence to the family was voted, and arrangements were perfected for a public burial with all the dignity due a President of the University. The estimate given by President Kirkland in a letter to the family of the deceased voiced public and private opinion of Warren: "A great and good man has left us, a bright ornament to his profession, an honor to family, town, state, country, to human nature."

The Medical Faculty of the University was increased on April 15th, 1815, by the establishment of two Lectureships; one of Materia Medica and Botany, the other of Midwifery. It was provided that each Lecturer was to have a claim to such compensation only as he might derive from the fees paid by persons attending his lectures, "which fees shall be charged agreeable to regulations determined by the Corporation." These Lectureships were filled May 10, 1815, by the election of Jacob Bigelow to that on Materia Medica and Botany, and Walter Channing to that on Midwifery. At this same meeting John Collins Warren was elected Professor of Anatomy and Surgery, as successor to his father. Professor Warren was inducted into office November 1, 1815.

The following year marks many changes in the régime of the school. The separation of Chemistry and Materia Medica by the election of Bigelow led the Corporation to vote February 19, 1816, "that it be the duty of the Professor of Chemistry to deliver at Cambridge during the present year at such times as the Corporation shall appoint, a full course of Lectures on Chemistry and Mineralogy, the students of the two upper classes being allowed to attend; that it be their duty to examine each of said classes separately once in each week, to ascertain their knowledge of those subjects on which the Lectures are given; the Professors to have care and charge of laboratories and apparatus; that in consideration of the services required of the Professors and to enable them to procure the requisite assistance they shall receive for the present year twelve hundred dollars." That close connection through Chemistry, existing between the Medical School and the College at Cambridge, was maintained for many years.

EXPANSION IN BOSTON,
CORPORATION AND FACULTY NOTES,
THE FIRST ORGANIZED FACULTY,
A MUSEUM AND A LIBRARY,
1816-1827.

CHAPTER XVII.

EXPANSION IN BOSTON—CORPORATION AND FACULTY NOTES—

—THE FIRST ORGANIZED FACULTY—A MUSEUM

AND A LIBRARY—1816-1827.

On December 29th, 1820, the President was instructed to confer with Gorham in regard to a modification of his Professorship. A report was made in June, 1822. After reviewing historically the various changes in the duties and emoluments connected with the professorship of chemistry since the establishment of the medical school the report says:

"The President, agreeable to the vote of the Corporation has conferred with Dr. Gorham on the transfer of his duties at Cambridge, and at a proportionate part of his compensation to the Professor of Mineralogy, and find that the Professor of Chemistry readily enters into such an arrangement and is disposed to relinquish for that purpose two thirds of the sum now received by him as salary."

The report being considered, the Corporation voted as follows:

"That the Corporation are of the opinion that it will be for the Interests of the College to have the Instruction in Chemistry and other duties relating to that department at the University in charge of a gentleman resident at Cambridge. That the Corporation would be gratified if such residence could be expected from the Erving Professor of Chemistry who has executed his office in a manner highly honorable to himself and satisfactory to their Body, and who has the full respect and confidence of the University. That as it is understood, however, to be impracticable to have his services at the College on the condition of residence, therefore, the Professor shall be exempted in future from the duty of teaching and taking care of the apparatus &c at Cambridge, and when he shall have discontinued his duties as above he shall receive annually the income of the Erving foundation, two hundred dollars."

It was the wish of the Corporation that the above vote be non-operative until one more course at least should be given at Cambridge.

After finding that Gorham would not accept the residence condition, it was voted to assign the duties at Cambridge to the Professor of Mineralogy and Geology. It was not until June 27, 1824, however, that they finally arranged that Gorham was to deliver lectures on Chemistry and Mineralogy at the Medical College in Boston; and the Professor of Mineralogy and Geology (to be chosen) was to give public and private lectures on Chemistry and also on Mineralogy and Geology at Cambridge, and probably to give examinations on the subjects of his lectures. His salary was not to exceed $1300 annually, but might be increased by charging non-matriculates. On October 14th, 1816, Aaron Dexter resigned the Erving Professorship of Chemistry, which he had held since the establishment of the School. Gorham was elected to the vacancy.

The Medical Statutes were revised and adopted October 16th, 1816, as follows:—

"STATUTES of 1816."

I. "The Faculty of Medicine of this University shall consist of the President and of the Professors and Lecturers authorized to give instruction to the medical students. This faculty shall always have a Dean elected by themselves, for such periods, as they may think proper, and may also adopt such rules for their own government provided that the same do not, in any respect, contravene the laws of the University.

II. "Students of Medicine, designing to attend the medical lectures, or any of them, shall be matriculated in this University, by entering their names with the Dean of the faculty of medicine, to be enrolled by him; and by signing an obligation to submit to the laws of the University, and to the direction of the faculty of medicine.

III. "There shall be four meetings holden in this University annually, by the faculty of medicine, for the purpose of examining candidates for the degree of doctor of medicine. Two of these meetings shall be for private examinations, and shall be holden in the Massachusetts Medical College in Boston; and two of them shall be for public examinations, and shall be holden in some one of the halls of the University in Cambridge. Three members of the faculty at least shall be present at every examination. The first meeting for private examination in every year shall be holden on the day, next succeeding that on which the winter courses of medical lectures shall terminate, at ten o'clock A. M. The second meeting for private examinations shall be holden on the Monday next but one preceding the day of the annual commencing in the University, at ten o'clock A. M. In extraordinary cases the faculty may hold meetings for private examinations at other periods. The meetings for public examinations shall be holden on such days as the President may appoint, provided that the same shall take place within one week after the termination of the stated annual meetings for private examinations respectively. All the meetings described in this statute may be continued by adjournment. The meetings for the public examinations shall be open to the Governors and instructors of the University, to the fellows of the Massachusetts Medical Society, and to such other respectable persons as may choose to attend them.

IV. "Candidates for the degree of Doctor of medicine must comply with the following conditions, before being admitted to private examinations, viz:

"1. They shall have attended two courses of the lectures delivered at the Massachusetts Medical College on each of the following subjects, viz., Anatomy and Surgery, Chemistry, and the Theory and Practice of Physic.

"2. They shall have employed three years in their professional studies, under the direction of a regular practitioner of medicine.

"3. Those, who have not received an University education, shall satisfy the faculty of medicine in respect to their knowledge of the Latin language and experimental philosophy.

"4. Every candidate, intending to offer himself for private examination shall three weeks previously give notice of his intention to the Dean of the faculty, and shall at the same time deliver, or transmit to the Dean a dissertation, written by himself, on some subject connected with medicine.* Every dissertation shall be submitted by the Dean, to the examination of the faculty in the mode which they shall point out.

*At a meeting of the Faculty of Medicine of Harvard University, August 15, 1821, *Voted*, That hereafter the dissertations of candidates for examination in winter shall be delivered on or before the first day of

V. "At the meetings for private examinations, the faculty shall examine all those candidates, who shall present themselves, after having complied with the conditions enumerated in the fourth of these statutes, upon the following branches of medical science, viz: Anatomy, Physiology, Chemistry, Materia Medica, Pharmacy, Midwifery, Surgery, and The Theory and Practice of Medicine. At these meetings every candidate shall be examined separately, and the decision of the faculty in respect to each, shall be made and declared to him immediately after the examination has closed. The decision in respect to each candidate shall be determined by the votes of the major part of the members of the faculty, present at the examination of the same; and this decision, if favorable to the candidate, shall be recorded by the Dean. In the decisions to be made at these meetings, regard shall be had to the dissertations, as well as to the examinations.

VI. "Those candidates, who have been approved according to the fifth of these statutes, may present themselves at the public examination, next ensuing after such approbation; each candidate so presenting himself, shall then read and defend, or be examined upon the dissertation, which he shall have previously submitted to the faculty. At the close of each public examination, the faculty shall decide, in respect to each candidate, whether he shall be recommended as worthy of the degree for which he has applied. The decision of the faculty in respect to all those candidates, whom they do so recommend, shall be recorded by the Dean and shall by him be certified to the President, to be laid before the *Senatus Academicus*. The candidates will learn the decisions in respect to them by application to the President.

VII. "Those candidates who have received from the *Senatus Academicus* the final approbation, will be directed by the President to appear at Cambridge, at such time as he may appoint, and he will then admit each of them, with the accustomed solemnities, to the degree of doctor of medicine.

VIII. "By a vote of the Corporation passed June 25, 1819,

"Candidates for the degree of doctor of medicine before being admitted to private examinations must have attended two courses of lectures in this University, on Materia Medica and on Midwifery.

"JOHN T. KIRKLAND, *President.*"

"*NOTE.*—The lectures for medical students on the various branches mentioned in the statutes, are delivered at the Massachusetts Medical College in Boston, and commence annually on the third Wednesday in January; and that the dissertations of candidates for examination in summer, shall be delivered on or before the first day of July; and that no excuse will be received for a delay in the delivery of dissertations after the days appointed in the fourth section of fourth statute.



November. They continue three months. During the lectures, the students may find in the town various opportunities for practical instruction.

"The Hollis Professor of Natural Philosophy will admit medical students to attend the lectures on natural and experimental philosophy. The lectures are delivered in the Philosophy Hall at Cambridge, four days in the week, between the middle of March and the middle of July annually. In order to their admission such students must produce, to the Professor above mentioned, a certificate of their matriculation, from the Dean of the Faculty of Medicine, and another certificate from the Steward of the University that they have paid him seven dollars for the Treasurer. Other persons may be admitted to the same lectures, with the approbation of the President, and producing a certificate from the Steward that they have paid ten dollars. Application to be made in writing to the College Registrar.

"The fee for the degree of Doctor of Medicine is to be paid to the College Treasurer. The fee is twenty dollars for a person who has not taken a degree of Bachelor of Arts at any College or University; fifteen dollars for one who has taken the degree of Bachelor; and ten dollars for one who has taken the degree of Master of Arts.

"It is to be desired that all candidates for the degree of doctor of medicine shall comply with the foregoing statutes; but in cases where they operate as *ex post facto* laws, and thereby occasion any considerable inconvenience to candidates, exemptions will be made by the faculty of medicine."

"FACULTY OF MEDICINE.

"Rev. John Thornton Kirkland, D. D. and LL. D., President of the University; James Jackson, M. D., Professor of the Theory and Practice of Physic; John C. Warren, M. D., Professor Anatomy and Surgery; John Gorham, M. D., Professor of Chemistry; Walter Channing, M. D., Lecturer on Midwifery; Jacob Bigelow, M. D., Lecturer on Materia Medica, and Rumford Professor in the University. Dr. Warren is Dean of the Faculty of Medicine; Wm. Gamage, Jun., M. D., is Librarian of the Medical College, and Abner Howe, A. B., Sub-Librarian."

To the meeting at which the revised statutes were adopted, Channing presented a memorial for the Corporation setting forth certain conditions which are best told in the following report of the President and Mr. Lowell:—

"That they have duly considered the arguments and suggestions in said memorial, and find them in the main forcible and correct, but that in some points the measures of the Corporation have been misapprehended, and particularly it was never the intention of the Corporation

to show any preference for the branch of Materia Medica to the disadvantage of that of Midwifery.

"It was the distinct understanding of the Corporation when they detached the subject of midwifery and materia medica from the duties of the Professors and entrusted them to able and distinguished young men at the instance and recommendation of the Professors that these branches of the medical art should in respect to the examination of Candidates at least stand on the same footing as before, and it being found that the former Statutes required an examination in Materia Medica of Candidates for a medical degree, but that this provision was omited in the revised Statutes, it was inserted by the Corporation.

"The Committee finding that the same is true of midwifery recommended that that branch also be the subject of examination and be placed on the same footing as that of Materia Medica, and that the mode in which this knowledge shall be acquired or the instruction requisite to its attainment be given, be at present left to the discretion of the Professors in concert with the Lecturers in those branches.

"Your Committee cannot conclude without expressing their hopes that the liberal salary allowed by the College to the Professor of Chemistry, and the sums annually paid to the other Professors, when united to the great advantages now enjoyed by the Faculty of Medicine in their ample accommodations* and in the increased number of students, will enable the present Institution to furnish to the students all the instruction necessary in the medical departments of which the branch of Materia Medica and Midwifery appear to them to be very important parts."

Jacob Bigelow, who had in the meantime (1816) been elected Rumford Professor of The Application of Science to the Useful Arts, wrote to the Corporation (October 31, 1816): "In regard to the lectureship of Materia Medica and Botany, as this lectureship commenced with me, as it is no expense to the University, and as its growth and success will depend on the exertions of the incumbent, I shall expect that the Corporation will never consider the holding of the office to be incompatible with the holding the Rumford Professorship, and vice versa." On December 11, 1816, Gorham was inducted into office as Professor of Chemistry, and Bigelow as

* The new school on Mason street.

Rumford Professor. The Corporation voted to publish copies of the addresses delivered by the two new professors.

The foregoing statutes were amended on April 9, 1823, as follows: Statute II changed to read:

"That the lectures be in the Massachusetts Medical College in Boston, commencing annually on the third Wednesday in November. They shall continue three months, and during said three months there shall be one lecture delivered every day, Sunday and holidays excepted, by the Professor of Anatomy & Surgery, by the Professor of Chemistry, and by the Professor of Theory and Practice of Physick; and one lecture every other day alternately by the Professor of Materia Medica and Botany and by the Professor of Obstetrics.

The first regular organization of a Medical Faculty connected with Harvard took place in Boston, November 1, 1816. Walter Channing, who had been Secretary of the Professors of the School, was elected Dean, an office created at that meeting. The Medical Faculty punctuated their organization by voting at the first meeting that a new library be formed in the Massachusetts Medical College, the nucleus of the library to be made up of donations from the Medical Faculty, and to contain a number of elementary works and other books useful to the students. William Gamage, Jun., M. D., was appointed librarian.

The Faculty consisted of James Jackson, John C. Warren, John Gorham, Jacob Bigelow, and Walter Channing. No change occurred in the personnel of this board for the next twenty years, excepting the appointment of John White Webster in Chemistry, 1827, and John Ware in Theory and Practice of Physic, 1832.

The meetings of the Faculty were held once a month at the

houses of the Boston members.* These meetings were governed by rigid rules. Each member, beginning with the oldest, was the host in his turn. It was enjoined upon him to give three days written notice to members, and when unable to have the meeting at his house he was to provide a substitute. In the event of his failing to comply with either condition he was fined three dollars; absentees were fined two dollars. Both of these fines were levied by the Treasurer and the proceeds were added to the Library fund.

The Massachusetts Medical College was completed on December 16, 1816, and at a meeting of the Corporation held on that date the President of the University was instructed "to procure a Diploma for the Degree of Doctor of Medicine to be engraved at the expense of the College, and that the President and Treasurer fix the price at which the same shall be given to Graduates."

October 6, 1818. It was voted by the Corporation that "the *Lecturers* in Materia Medica and Botany, and Midwifery be denominated *Professor* in their respective departments, having rights and duties according to the Statutes of the Medical Institution of the University, but without any claim to compensation other than the fees they may receive from their pupils.

"Voted: That the Professor of Midwifery give Lectures on Medical Jurisprudence; but without any additional charge, and that this branch be added to his *title*.

* Copy of Faculty Meeting Summons:

"Dear Sir: A statute meeting of the Medical Faculty of Harvard University will be holden at my house on Monday 20 inst, at 10 A. M. for private examination of Candidates for Medical Degrees.

"Faculty Dinner at my house at 2 P. M." "W. CHANNING."

"Voted, That the attendance on the respective lectures of the above stated members of the Faculty of Medicine of the University, shall be required, in order to obtain a degree, of all persons, who shall be matriculated in the medical School after the next Commencement."

Two essentials for the promotion of medical teaching are, a well equipped museum and a medical library. These the faculty took means to furnish at an early date.

"ANATOMICAL MUSEUM.

"The University possesses two collections of anatomical preparations. One of these is kept in Boston and belongs to the Medical School, and the other in Cambridge for the use of the senior class of students in literature, and the occasional instruction of the medical class.

"In the first there are about one thousand pieces, consisting, 1st. Dry injected blood vessel, preparations of different parts of the human body. 2nd. Wet preparations of healthy structure, which are mostly injected. 3rd. Morbid preparations. Among the osseous pieces are several fine specimens of Exostosis, Ankylosis, Necrosis, Spina Ventosa, and Fractures. Among the soft parts are good specimens of organic diseases of heart and arteries. The injected wet preparations of healthy structure are probably not excelled in the United States, in number or beauty. Those of the eye are especially worthy of mention. All this collection has been the work of the present professor, Dr. John Collins Warren. The collection contains also wax representations of eye magnified; of the ear, and of the male and female organs of reproduction.

"The anatomical collection at Cambridge consists of preparations of the human body, and other of wax. The former were presented to the University through the agency of Ward Nicholas Boylston, Esq., by John Nicholls, LL. D. of London. They were prepared by the celebrated Dr. Nicholls. who himself invented the corroded injections. Many of these are found at Cambridge in perfect preservation, and cannot be excelled in beauty nor minuteness, especially those of the vessels of the lungs, of the heart, and of the urinary organs. In this collection are a great number of fine specimens of urinary calculi, among them one which has a leaden bullet, and another which has a needle, for a nucleus.

"The wax preperations were in part a donation from Hasket Derby, Esq., and in part from the College authorities.

"In addition to this collection the professor of anatomy has begun the formation of a cabinet of comparative anatomy."

"November 25th, 1819."

"To the Rev'd. John J. Kirkland, LL. D.,
"President of Harvard University:

"Sir: The subscribers have collected a Library which is now placed in

the Massachusetts Medical College and to which they have given the name of the 'Library of the Massachusetts Medical College.' The Library has been collected from their own resources with the exception of some valuable works presented to it by Benjn. Vaughan, Esq. A catalogue of this library will shortly be prepared and shall be sent to you.

"It is the wish and design of the Subscribers that this Library should remain permanently for the benefit of the medical pupils of the University, and for this purpose that it should be under the management of the medical faculty of the University, subject however to the inspection and control of the Reverend and Honorable the President and Fellows of the University, so as that the design of the subscribers should be carried into effect.

"It is also the intention of the subscribers to continue to make donations to the library, and it is their hope that their successors will feel the same solicitation for its increase as they themselves do feel.

"With a view to increase the number of Books to which the pupils of the University may have access, the Subscribers have entered into an agreement with the proprietors of the Boston Medical Library* in consequence of which the two Libraries are united and will continue to be so as long as it may be agreeable to both parties. By this agreement the Boston Medical Library is kept in the Massachusetts Medical College, and is under the care of the same Librarian who is appointed by the Subscribers to take charge of the Library of that College, and the books of each library are common for the use of those who have legal access to the other.

"The Subscribers have also made a temporary agreement with the Boylston Medical Society in consequence of which a small collection of Books belonging to that Society is placed in the library of the Medical College and the members of that Society are allowed the free use of the books of all the libraries under certain conditions. The leading motive in making this agreement was to give encouragement to that Society.

"From Medical pupils not members of the Boylston Medical Society the Subscribers demand a small fee for the use of the Library of the Medical College.

"These circumstances have been stated in order to show under what obligation the subscribers have laid themselves as Proprietors of the Library of the Massachusetts Medical College.

"In order that this Library may be perpetuated for the purposes which have been mentioned the subscribers now give the Library of the Massachusetts Medical College to the Rev'd and Hon. President and Fellows of the University at Cambridge to be the property of the same in their Corporate capacity forever, on the conditions following, viz:

* Not the present Library of that name.

"First, That the said Library shall always be under the immediate care and management of the medical faculty of the said University for the use of the same, and of the students of Medicine of the said University on such conditions as the said Faculty may from time to time subscribe.

"Second, That the said Faculty shall be empowered to continue and to fulfill all the agreements already made and which have been referred to in this letter, and to make such other agreements as may render an access to this library more beneficial to the students of the University.

"Third, That it shall be made the duty of the said Faculty to take proper charge and care of said library and that they shall be amenable for the performance of this as of their collegiate duties to the said President and Fellows.

"Fourth, That all the income which shall accrue to the said Library in any mode shall after the necessary incidental expenses of the same have been defrayed, be appropriated annually to the purchase of books to be added to the said Library.

"Fifth, That the President and Fellows shall never in consequence of this gift be subject to any charge or expense for the maintainance of the said Library.

"In testimony of this deed the subscribers sign this paper on the twenty-sixth day of October, A. D. eighteen hundred and nineteen, at Boston.

"JAMES JACKSON.
"JOHN C. WARREN.
"JOHN GORHAM.
"WALTER CHANNING, JUN.
"JACOB BIGELOW."

The following letter was received in reply.

"December 16, 1819.

"WALTER CHANNING, M. D.,
"Dean of Faculty of Medicine of Harvard University:

"Dear Sir: I received your communication inclosing the Conveyance of the Library of the Massachusetts Medical College to the Corporation as a donation of the members of the Faculty to the University.

"At a late meeting of the Corporation it was laid before that body who voted to accept the same on the conditions annexed, desiring at the same time to express to the gentlemen the sense which the Corporation entertain of the provident views and liberal spirit, which are manifested in the proceedings of the distinguished Professors of the Medical School of the University.

"With great consideration and regard,
I am Dear Sir yr. frd. & Servt,

"JN. J. KIRKLAND."

The previously existing Boston Medical Library had been deposited in the Medical College, and thus were added two thousand volumes to the collection made by the Faculty. The Boylston Library was rich in Greek, Latin, and Arabic Authors. It contained many standard works, and was particularly valuable for a very fine collection of anatomical engravings, i. e., Albinus, Eustachius, Cheselden, Cowper, Haller, Nicholls, Fyfe, Baillie, Astley Cooper and Loder. The library of the Medical College contained a supply of elementary works for students, as well as standard works and the periodicals of England and France. The Boston Medical Library collection was composed of modern English and French works, not over twelve years in print.

The number of medical students at the School in 1818 was 58. The course of Lectures was three months, beginning on the third Wednesday in November. Students not requiring credit could procure a perpetual ticket upon the payment in advance of the fee for the second course. These fees were: Anatomy and Surgery $20, Chemistry and Theory and Practice, each $15, Materia Medica, and Midwifery, each $10. The catalogue for 1818* states: "During their residence in Boston the students have opportunities of seeing actual practice, either by entering their names with some physician in the town or by attending the Alms House, which is usually accessable for a small fee. The Physician of the Marine Hospital (Dr. Townsend) has liberally invited them to attend."

The private examination of each candidate for a degree occupied eight minutes for each branch; "but in doubtful cases,

* First Catalogue of the Medical School.

the examiner may continue the examination as long as he judges necessary." Immediately after the examination of each candidate, a vote was taken, without debate, and a majority vote decided the young man's status. Each candidate who was not a college graduate was further examined in Latin and Natural Philosophy, and was required to show satisfactory knowledge in both before he was qualified to receive his degree. Ten minutes were allowed each candidate, at the public examination, for the reading of his dissertation. The fees for graduation were $20 for those who had not taken the Bachelor's degree, $15 for those who had taken that degree, and $10 for those who had taken the Master's degree.

The following circular was issued in 1823. It indicates the School's development.

"The Medical Faculty of Harvard University give notice, that their lectures at the Massachusetts Medical College in Boston will begin on the third Wednesday of November, and be continued daily until the termination of the course.

"It is presumed that the means, now possessed by this school for promoting and facilitating the acquirement of medical knowledge in all its branches, are equal to those offered by any American college, and commensurate with the advances made by society in the other departments of learning. As auxiliary to the several courses of medical instruction, the school is amply provided with apparatus, collections, and opportunities for practical demonstration; which, if aided by industry on the part of the student, are calculated to offord him the same kind of information, as that for which the hospitals and seminaries of Europe are usually visited. These auxiliary advantages consist in a large and select medical library; a cabinet of a thousand anatomical preparations; an ample and well furnished chemical laboratory; a collection of specimens of the materia medica; a suit of models and specimens for illustrating the principles and operations of obstetrics; a course of recent dissections, both public by the professors, and private by the students themselves; and lastly, an opportunity of acquiring practically medical and surgical knowledge at the Massachusetts General Hospital.

"The following courses of lectures begin and terminate at the periods which have been specified:

"Anatomy and Surgery.....	by Dr. Warren	Fee $20
"Chemistry	" Dr. Gorham	" 15
"Midwifery and Medical Jurisprudence..	" Dr. Channing	" 10
"Materia Medica	" Dr. Bigelow	" 10
"Theory and Practice of Physic.....	" Dr. Jackson	" 15

"These constitute the regular course of Medical instruction preparatory to a medical degree. Students, who choose, have the additional opportunity in the spring season to attend lectures at Cambridge on Mineralogy, Botany, Natural Philosophy, and Philosophy applied to the Arts, as well as on various departments of literature.

"As the Massachusetts General Hospital has not been completed so as to be accessible to medical students until within the two last seasons, it may be proper to give some account of the opportunity it affords for practical instruction to students during their residence in the city. The wards of the medical department have always furnished a succession of interesting cases, both acute and chronic, which have been under the care of the professor of the theory and practice of physic. Regular clinical lectures during the winter are given upon these cases, and students are admitted to the patients so far as to become experimentally conversant with the symptoms of their diseases, the progressive changes which take place, and the operation and influence of medicinal agents.

"As is common in large establishments of the kind, many patients resort to the General Hospital to undergo surgical operations, rendered necessary by accident or disease. No other kind of institution affords equal opportunities for acquiring a practical acquaintance with operative surgery. Not only the operations themselves, but the treatment of the cases preparatory and consequent to the operation, and the progress and management of convalescence, may be here studied and observed. The superior conveniences which a well arranged hospital affords for the accommodation of the sick, renders this institution a resort, not only of the poorer class, among whom in a large city, accidents are of frequent occurrence; but of other individuals from a distance, who come with the expectation of relief from chronic maladies requiring surgical treatment.

"The following is a record of surgical cases, and of operations performed in the Massachusetts Hospital, by the Professor of Anatomy and Surgery, during twenty months, from the opening of the building in September, 1821, to June, 1823:

"1821.	Sept.	21.	Operation for Prolapsus ani.
	Oct.	18.	Lithotomy.
	"	22.	Operation for Popliteal Aneurism.
	"	25.	Operation for Fistula in ano.
	Nov.	10.	Fractured leg.
	Dec.	9.	Dislocation of the hip in the ischiatic notch.
"1822.	Jan.	6.	Fracture of the thigh.
	"	"	Compound fracture of the leg.
	"	30.	Removal of a portion of the tibia.
	Feb'y.	5.	Amputation of the leg.
	"	19.	Operation for phymosis.
	"	"	Removal of diseased toes.

	March	9.	Fractured leg.
	April	22.	Compound comminuted fracture of leg.
	"	24.	Extirpation of tumor from the breast.
" 1822.	June	8.	Comminuted fracture of the Os humeri.
	July	17.	Amputation of the breast.
	August	2.	Compound fracture of both patellae.
	"	30.	Removal of foreign substance from the globe of the eye.
	Sept.	20.	Amputation of the breast.
	Oct.	12.	Extirpation of the parotid gland.
	"	"	Operation for prolapsus ani.
	"	23.	Operation for Fistula in ano.
	Nov.	23.	Operation for Cataract.
	"	28.	Operation for Necrosis.
	"	"	Removing tumor from the foot.
	Dec.	20.	Operation for artificial pupil.
" 1823.	Jan.	15.	Removing tumor from the side.
	Feb'y.	5.	Removing fragments of rib.
	"	12.	Operation for cataract.
" 1823.	Feb'y.	18.	Operation for inguinal aneurism, the iliac artery tied.
	"	"	Facial nerve divided for tic douloureux.
	"	25.	Operation for phymosis.
	"	"	Laying open a fistulous ulcer over the ribs.
	"	26.	Inferior maxillary nerve divided for tic douloureux.
	March	6.	Fractured leg.
	"	"	Operation for cataract.
	April	4.	Operation for Cataract.
	"	29.	Operation for Cataract.
	May	26.	Operation for Necrosis.
	"	21.	Fracture of thigh.
	"	26.	Operation for Cataract.
	June	9.	Operation for Fistula lachrymalis.
	"	11.	Operation for Cataract.
	"	"	Operation for Cataract.
	"	"	Operation for Eversion of eyelid.

"The fee for attendance on the joint medical and surgical practice of the hospital is reduced to ten dollars.

"Besides the practice of the hospital, opportunities frequently occur of witnessing the private practice of physicians, such as the condensed population of large cities is peculiarly calculated to afford, where the poorer class is numerous, and many of them the subjects of charitable institutions.

"Board in the city may always be obtained at from three to four dollars per week. The medical class of the two last years has consisted of about eighty students.

"Boston, June, 1823."

In June, 1827, the question of the Erving Professorship of Chemistry then vacant through the resignation of Gorham came up for consideration at the meeting of the Corporation. It was voted to make the salary one thousand dollars, on condition that the occupant of the chair pay all the expenses of his lectures, excepting that of fuel at Cambridge. It was also voted that he should reside in Cambridge, and give the lectures in the Medical College in Boston and all the instruction re-

quired in Chemistry, Mineralogy and Geology to the undergraduates, " and perform such other duties as may from time to time be assigned to him by the Corporation not inconsistent with the duties of the office." It was then voted to fill the vacancy, and John White Webster was elected (June 5, 1827), an election which had a tragic sequel, as we shall learn.

It seems that the professors of the Medical School examined candidates for the medical degree while the fee for the degree went to the College treasury, and not to the Medical School treasury. This arrangement presented no difficulties until the school building needed repairs, heating, water, etc., when it appeared that the College authorities expected the medical department to bear the expense of such repairs. This led to further negotiations. Several suggestions were made, but none satisfied the conditions. In 1821 the Medical Faculty sent the following note to the Corporation;

" That since the Faculty of Medicine are not in any mode that they are aware of chargeable to the University, and

" That, since a considerable sum is annually received into the funds of the University for the degree of Doctor of Medicine, the examinations for which are conducted by the Faculty, without any fee to them accruing, and further,

" That since the Faculty are now liable to defray the expenses of repairs of the Massachusetts Medical College,

" Therefore the Corporation be requested to decree that the future expenses for repairs for the said College be defrayed out of the sums received for Medical Degrees."

President Kirkland replied that the fees for degrees had never been appropriated to repairs, and that before salaries accrued to any of the Professors the fees were to go to objects connected with the Medical College; for books, apparatus, etc. He further stated that the Corporation had not voted to appro-

priate the fees for Degrees towards repairs, although they did vote to pay for certain specific repairs. Whether any deduction from salaries had been made on account of interest on the sums thus expended, the President was unable to state. The question was thus left unsettled, and was bound to recur. This it did, and the ending of this apparently trivial matter had such an important bearing on contemporary conditions that its further discussion will be deferred.

APPENDIX I.

STATISTICS, REGULATIONS AND SALARIES.

APPENDIX I.

STATISTICS, REGULATIONS AND SALARIES.

Information concerning the early doings of the Medical School is very meagre. The development of the School gave occasion for many reports and votes by the College Corporation, and the main points have been enumerated in the previous pages of this book. Nothing definite, however, is known as to the frequency of the medical lectures. It had been supposed that they were given daily. The following notice in "The Boston Magazine" of November, 1784,* is illuminating:

"Yesterday the (weekly) Medical Lectures of the University commenced at Cambridge for the season."

There is no list of the books used at the medical School, but it is safe to accept the following list, which comprises the books necessary for candidates who were to present themselves for examination for admission into the Massachusetts Medical Society:†

Winslow's Anatomy; Cheselden ditto, Keil's ditto; Douglass on the Muscles; Monro on the Nerves; Monro's Osteology; M. Sabatier's Anatomy with Albinus's or other good anatomy tables; Boerhaave's Academic Lectures; Cullen's Physiology; Haller's Physiology; Hewson on the Blood and Lymphatics; Fleming's Lectures on Physiology; Sheldon's History of the Absorbent System; Watson's Chemical Essays; Fourcroy's Chemistry; Macquer's Chemistry; Cullen's Treatise of the Materia Medica; Lewis' Materia Medica by Aiken; London and Edinburgh Dispensatories, last

* Page 577.

† "Independent Chronicle and the Universal Advertiser"; June 3, 1790.

Edition; Heister's General System of Surgery; Pott's System of Surgery; Smellie's Midwifery; Hamilton's Midwifery; Van Swieten's Commentaries on Boerhaave's Aphorisms; Cullen's First Lines of the Practice of Physic; Macbride's Experimental Essays; White on Pregnant Women and Puerperal Fever; Whytte's Works; Syndenham's Works; Cullen's Synopsis; Nosologia Methodica.

This Society was in fact a medical school, and its high aims and purposes on the question of medical education were valuable supplements to the new Medical School at Cambridge.*

The first account of the School is given in the following communication printed in the Massachusetts Magazine in 1791:

"Cambridge, August 16, 1791.

"*The Medical Institution of the University in this place has attracted the attention of medical students, not only in this state, but of neighbor-*

* At a meeting of the Massachusetts Medical Society in April, 1790, it was: "Resolved That the following qualifications shall be considered as indefeasibly necessary for every candidate who shall offer himself for examination.

"I. He shall have such knowledge of Greek and Latin Languages as to be able to construe and translate them.

"II. He shall have a general acquaintance with the principles of Geometry and Natural Philosophy.

"III. He shall have studied three full years under the direction and attended the practice of some reputable Physician or Physicians—during which time he shall read the most approved authors in Anatomy, Physiology, Chemistry, Materia Medica, Surgery and the Theory and Practice of Physic. Of all which qualifications a satisfactory certificate from the physician or physicians with whom he hath studied shall be produced to the Censors, previous to his being admitted to examination.

"The Society earnestly recommend an University education to all designed for the Medical Profession and to all Students in Physic an attendance upon Medical lectures in the various branches as taught in Universities. And as most of the French Authors upon Physic and Surgery have written in their own language, and many of them are very valuable, the Society also recommend a knowledge of that language.

"The above regulations respecting Education are considered as applying to those only who shall commence these Medical studies from and after the date of publication."

ing ones; and a considerable number have resorted here, to attend the lectures of the professors. Some knowledge of it has also made its way into the Province of Canada, from whence two madical students have already repaired to this University for instruction. An application has lately been made from this quarter, for a copy of the Medical Institution, 'for the information of such young men in that province, as might be desirous of studying physick, &c. and whose circumstances, either pecuniary or local, would render it impracticable, or not eligible, to go to Great Britain, for the purpose of attaining that most useful branch of science—Medicine.'—This request will undoubtedly be complied with. In the mean time, it would not perhaps be amiss to give our "own citizens at large a fuller knowledge of this Institution than they already have: you are therefore requested to publish in your useful magazine the following

"Abstract of the Medical Institution

"Established 1783.

"That there be three medical professors in the University, viz, a professor of Anatomy and Surgery, a professor of the Theory and Practice of Physick and a Professor of Chemistry and Materia Medica.*

"That the professors be elected by the president and fellows of the university (or a major part of them) for the time being, and be by them presented, when chosen, to the overseers, to be by them approved and confirmed.

"That the professors be at all times under the inspection of the president and fellows, and of the overseers, for the time being, to be by them, displaced for any just and sufficient cause; the overseers also, or the major part of them, consenting thereunto.

"That on the death or removal of such professor, a successor be elected by the president and fellows, within the space of one year, and be by them presented to the overseers, for their approbation and confirmation; and that in case of the president and fellows neglecting to make choice of a successor, within said term, the overseers, for that time, proceed to elect and appoint such successor.

"That each professor be a master of arts, or graduated bachelor or doctor in physick, of the christian religion, as it is maintained in the churches of the protestant communion, and of strict morals.

"That the professors demonstrate the anatomy of the human body, on recent subjects, if they can be procured, if not, on preparations, duly adapted to the purpose. That they elucidate this, by physiological observations on the parts, and explain and perform a complete system of sur-

* The present Professors are, *John Warren*, M. D., for Anatomy and Surgery; *Benjamin Waterhouse*, M. D., for the Theory and Practice of Physick; and *Aaron Dexter*, M. D., for Chemistry and the Materia Medica.

first operations. That they teach these pupils the theory and practice of physick, by dissecting and superintending, as much as may be, their private studies, lecturing on the diseases of the human body, and riding with them, such as are qualified, to visit their patients, making proper observations on the nature of the disease, the peculiar circumstances attending them, and the method of cure, and whenever the professor be desired, by any other gentleman of the faculty, to visit their patients, in difficult and uncommon cases, they shall use their endeavours to introduce with them their pupils, properly qualified. That they deliver lectures on the materia medica. That they explain the theory of chemistry, and apply its principles in a course of actual experiments.

"That each of these professors have the use of the library, and be entitled to all the privileges of the university, in common with the other professors, as far as circumstances will permit.

"That all students in physick, residing in the halls of the University, or in the town of Cambridge, during the course of the above lectures, who shall put themselves under the instructions of the professors, whether they have a college education, or not, be entitled to the use of the authors in the library, in anatomy, surgery, physick, the materia medica and chemistry, under the direction of some one of the professors; or of any other authors, by the president's permission; graduates and undergraduates of the university paying customary fees, and all other double fees.*

"That all students in physick, whether they have had a college education or not, be admitted to the lectures and instructions of the professors, on their giving security to pay the established fees, and other dues of the University, legally assessed. Undergraduates, however, shall not be admitted till they are of three years standing in the university, nor then, without their parents and guardians signifying their consent to the president, in writing. Such students, nevertheless, who are of three years standing, and twenty one years of age, may be admitted on their own application to the president.

"That all students in physick, residing within the university, or in the town of Cambridge shall pay obedience to the laws of the university.

"That every student in physick shall be assessed in the quarter bills, by the president and fellows, with the consent of the overseers, such sums as shall be mutually agreed on by the professor and himself.

"Every student in physick, who shall have taken two courses in anatomy, the theory and practice of physick, chemistry and materia medica, and shall have studied two full years with some reputable practitioner in physick, may at the expiration of another, offer himself as a candidate for a medical degree, and after having passed through an examination made by the medical professors, (or professor, if there should at any time be

* Four shillings per quarter.

but one) in the presence of the governors of the university, and of such members of the Massachusetts Medical Society, and other physicians and gentlemen as shall chuse to attend, at such stated times as the governors shall appoint, and shall also, at such publick examination, deliver and defend a dissertation in the Latin or English languages, on such disease or other medical topick, as shall be assigned him by the professors, with the consent of the president; and at the end of such examination being in the opinion of said professors, or a major part of them, (or of the professor, if there shall at any time be but one) well qualified to pursue the business of physick and surgery; such student shall be entitled to the degree of Bachelor in physick. Provided nevertheless, that such students who have attended but one course of lectures, may upon their particular application, and special reasons pleading in their favour, be admitted to such publick examination, and if found qualified, receive a bachelor's degree, upon their performing the above exercises,

"But those students in physick, who have not had a college education, shall, previous to the forementioned examination, satisfy the president, the medical and other professors and tutors, at a meeting for the purpose, of their knowledge in the Latin language, and in experimental philosophy,* and in such branches of the mathematics as shall be judged requisite to a medical education.

"Bachelors in physick of seven years standing, and who during that time have been practitioners in physick, may receive a Degree of Doctor in Physick upon their being approbated by the medical professors, and after being examined by them, in presence of the governors of the university and such other gentlemen as chuse to attend, and delivering and defending one dissertation in the Latin and one in the English language, on such diseases or other medical topick, as shall be assigned them by the said professors, with the consent of the president. The Latin dissertation to be printed, at their own expense.

"That every graduate in physick, be enjoined to communicate to some one of the medical professors all such observations as he may make in the course of his practice, which he shall judge to be of publick utility, which observations the professors shall communicate to the publick (as often as means are found for defraying the expenses of the publication) with their remarks on them.

"That honorary degrees in physick, which may be conferred on gentle-

*"Some medical students, who have not had the advantage of a college education, may be deficient in the knowledge of natural philosophy, when they come to attend the medical lectures; they are therefore permitted to attend the course of experimenal lectures in that branch, upon paying the small sum of forty shillings."

men of eminence in the profession as a reward of merit shall be given free from all fees." *

"To the Students in Physick.

"The Medical Institution of the University at Cambridge has been now eight years in existence, and the utility of it has been already fully ascertained by the success which has hitherto attended it, and the many advantages which have resulted from the mode of instruction, adopted in this establishment; and there is great reason from the local situation of the University, the temperaments of the climate, and the salubrity of air, to believe it capable of being rendered as valuable by its advantages for a medical education, as it has long been for other branches of the science.

"Impressed with the importance of rendering this institution more extensively useful, by appointing proper means for exciting an emulation among the students in physick, to become eminent and distinguished in their profession, and of conferring adequate rewards and encouragement on the ambitions and deserving, the government of the University has subjoined to the original such honorary distinctions as have been generally adopted in foreign Universities, and as may duly discriminate between those who have enjoyed the advantages of regular instruction, and those who shall necessarily be less qualified for the practice of the medical art. It was the design of this institution to facilitate the acquisition of medical knowledge, to prevent as far as possible, any person's taking upon him the charge of the health and lives of his fellow creatures, without a proper acquaintance with the principles of the healing art, to assist those who should be worthy of countenance, and to promote the interests of society by a serious and effective attention to the most momentous concerns of human life, its happiness and preservation.

"The utmost assiduity and unwearied exertions have been employed to complete the system of instruction in every article; a very valuable collection of books in the various branches of the profession, being all of them the most modern publications in the different parts of Europe, have been imported: These, together with what were contained in the college collection before, form a complete medical library, for the use of students in physick, agreeable to the article on this subject; and it is intended that latest publications of value shall be annually imported for the same purpose.

"An apparatus for exhibiting the usual processes in a course of chymi-

* Some time after the forming of this institution, the fee for Bachelor of Physick was established by the legislature of the University as follows: One who has received a college education and taken the degree of master of arts, is to pay forty shillings; but if he has taken a Bachelor's degree only five pounds. All others are to pay a fee of seven pounds.

cal lectures is also obtained, and the experimental part will now more usefully be taught in conjunction with the theory of chymestry.

"A number of very valuable natural preparations of the whole, as well as of the several parts of the human body, are procured, and frequent additions are making to the anatomical apparatus: These, together with the actual dissections of recent subjects, for which a convenient theatre is erected, furnish ample means for acquiring an accurate knowledge of the structure of the human body, and of the animal economy.

"All the surgical instruments of modern and improved construction are obtained for performing the operations in surgery, and a complete apparatus for demonstrating to students of that particular art, the obstetrick branch of practice.

"The theory and practice of physick is systematically taught, an advantage that can rarely be derived from a private education, as few physicians who take pupils can possibly have leisure sufficient to admit of their bestowing any considerable share of their time upon this very important object. The value of this part of the establishment is greatly enhanced by the proximinity of the town of Boston, where the number of sick must ever be large, the cases of disease exceedingly various, and the opportunities for obtaining practical instruction, as numerous as in any part of the United States.

"The experimental lectures in natural philosophy, are open for all students who shall attend the medical lectures, and it is well known that the apparatus provided for the purpose is equalled by none on the continent of America; The same observation may be made with respect to the library at large, as containing the most numerous collection of useful books, and the most modern discoveries and improvements in the arts and sciences.

"The means for obtaining a medical education being thus substantially founded by the appointment of the respective professorships in anatomy and surgery, the theory and practice of physick, and chymistry and the materia medica, it is conceived, that no circumstance can in future be admitted as an apology for entering upon the solemn offices of the medical profession, without qualifications adequate to the importance of the object, a knowledge of anatomy and the animal economy as an indispensible basis, and of the other branches as absolutely necessary to complete the superstructure: To these advantages we may add the opportunity afforded by the present collection of books, and by an annual importation of the latest European publications, for becoming acquainted with all the improvements in physick and surgery, and advantage not easily to be derived from a private library.

"Lectures in this branch are not to be open to any of the students of the College; but to those gentlemen only who come from abroad to attend

the medical lectures, and who have either entered upon the practice of physick, or are studying with gentlemen of the faculty to qualify themselves for practice."

Gradually the number of American students who went to Europe for the doctors' degree became fewer in proportion to the whole. In the list of medical graduates at the University of Edinburgh for the year 1802, of the twenty-four thus honored seven were from England, two from Barbadoes, and two from Jamaica. *There was not a single graduate from the United States.* This is all the more significant from the fact that in 1786 one of the reasons ascribed for the scarcity of specie in the United States was the large amount of that precious metal annually sent to Europe for the support of young Americans who had gone there to study medicine.*

The advantage of foreign study is said to have been less than we are wont to think. England had but one medical college. The Anatomical and Surgical Course at St. George's Hospital was completed in thirty-six lectures, and Nichols gave a full course upon Anatomy, Physiology, Pathology and Midwifery in the same number of lectures. It was not until 1831 that a separate Professorship in Surgery was established at the University of Edinburg.†

Anything like an accurate list of the number of medical students attending our school while it was at Cambridge does not exist. We are told that the average attendance at each course was twenty students, with probably as many more from the University.

*This was said to amount to £12000 sterling per annum to Great Britain only.

†Up to 1831 Surgery was taught by Monro 3rd as a part of his course on Anatomy.

Neither is it possible to get a financial report of the state of the Medical School prior to 1800. We know that the students were assessed for the fitting up of rooms used for the School before Holden Chapel was remodeled; and that the fees for the first few years were regulated by an agreement between the Professors and Pupils. Later, the fees were fixd by the Corporation and Overseers, and specifications were made as to the disposition of the income. Definite arrangements were made concerning the income from the legacies received, as we know.

The following is the first official financial report made by the Medical Faculty to the Corporation of Harvard College,* Date of 1810.

"Legacies Appropriated to Medical Professors:

	Principal.	Interest.
"John Cumings	$ 1666.66	$ 100.00
"Sarah Derby	$ 3639.31	$ 218.36
"E. Hersey	$ 7952.00	$ 477.12
"Abner Hersey	$ 1666.66	$ 100.00
"William Erving	$ 3333.34	$ 200.00
	$18257.97	$1095.48

"Prof. Waterhouse receives per annum

"½ of the income of E. Hersey	$238.56
"½ of the income of Sarah Derby's legacy	$109.18
"½ of the income of Abner Hersey's	$ 50.00
"John Cuming's legacy, the whole income	$100.00
	$497.74

* This report was found among letters and manuscript in the possession of Dr. John C. Warren, the present Moseley Professor of Surgery. All papers, letters, manuscripts, etc., of Dr. Warren's father, grandfather, and great-grandfather have been put freely at my disposal, and it is from the papers of this gentleman that many facts regarding the early history of the Harvard Medical School are gathered. It is with sincere gratitude and appreciation that I acknowledge the assistance afforded me by the use of these papers.—T. F. H.

"Prof. Warren receives

"½ the income of E. Hersey	$238.56
"½ the income of Sarah Derby's legacy	$109.18
"½ the income of A. Herseys	$ 50.00
	$397.74

"Prof. Dexter receives the

"Income of William Erving's	$200.00

Abstract of income of Medical Professors from fees assessed on the Students of the College for the last 10 years viz; from 1800 to 1809 inclusive of deducting what was retained in sundry years from sums assessed for Dr. Warren and Dr. Dexter for the use of rooms.

"N. B. Fees from Medical Students not belonging to College not included.

Years	Dr. Waterhouse	Dr. Warren	Dr. Dexter
1800	$ 291.33	$ 177.00	$ 69.99
1801	253.31	559.00	102.63
1802	27.99	376.00	112.29
1803	168.66	578.60	66.97
1804	238.00	278.00	109.29
1805	67.98	378.00	84.30
1806	171.00	387.00	50.31
1807	40.00	392.00	118.29
1808	60.00	327.00	165.28
1809	70.00	639.00	264.90
	$1388.27	$4091.60	$1144.25
Annual average to each	$ 138.82	$ 409.16	$ 114.42
Annual income from legacies	497.74	397.74	200.00
	$ 636.56	$ 806.90	$ 314.42

"By the new arrangement proposed

Dr. Waterhouse to receive	$500.00
Dr. Warren to receive	500.00
Dr. Dexter and Dr. Gorham to receive	700.00
	$1700.00

"Thus provided for viz: For Waterhouse as before

from sundry legacies	$497.74
from Royal legacy	2.36
	$500.00
Dr. Warren from legacies as before	$397.74
from Royal legacy	102.26
	$500.00

Dr. Dexter and Gorham from Ervings legacy as before.....$200.00
Assessment from Students at $10.00 each, uncertain, say.....$400.00
From unappropriated funds of the College.....$100.00

$700.00

"This arrangement is certainly a very advantageous alteration to the Students of the College. In order to have the benefit of all the lectures formerly there was payable to

Dr. Warren	$17.00
Dr. Waterhouse	9.32
Dr. Dexter & Gorham	9.32
	$35.64

"They will now have the benefit of all the lectures for $10.00:—difference in favor of students $25.00. The Anatomical Professors it will be percieved suffer the greatest diminution. But when the Scale of Lectures being considered adapted only to Students of the university and not especially for Medical pupils, (for whom the lectures at Boston are especially calculated) the compensation adequate. The same remarks apply in an equal degree, at least to the Professor of the Theory and Practice of Medicine. In regard to the Professor of Chemistry it will be considered that Mineralogy is now annexed to that department. These Sciences are of great extent requiring minute attention and many experiments and are well adapted to the situation of young gentlemen to whom Lectures are to be delivered. The necessary attention which lectures will require to do justice to the subject must lead the Professor into difficulties from Professional studies and engagements rendering a compensation greater than that of others, an act of justice."

The necessity for hospital facilities in which to give the students the advantages of wider and *more systematic* training than could be obtained under the apprenticeship method, was early considered by the College authorities. The following letter from the Professor of Theory and Practice is especially interesting, there being at that time no public hospital in New England, and only three in the country, i. e., the Pennsylvania Hospital in Philadelphia, the New York Hospital in New York, and the Charity Hospital (established 1784) in New Orleans. The first two were part of medical college establishments.

"Cambridge Feb. 9th 1803.

"To Gen. Lincoln.

"Dear Sir:

"Since conversing with you on the subject of the Marine Hospital about to be erected in this neighborhood, I have thought it would afford you an opportunity of considering the matter to more advantage, in all its relations, were I to express my Ideas on paper. About twenty years ago a medical school was annexed to this university. A course of lectures is given annually, in six branches of medicine, by the three professors. We have however, felt and lamented the want of a hospital to which our pupils might repair to see our doctrines reduced to practice. This defect has been particularly felt in that branch which falls to my lot, viz the theory and practice of Physic, and in that of Surgery. Many and various have been the attempts to supply this deficiency but they have all failed and left only the distant hope of a marine hospital for seamen in general, or a particular one by our National Government. When President Washington visited this university, in the course of his tour through these Northern states, President Willard conversed with him, in my hearing, on this very subject and suggested the great public utility of an hospital in the single point of medical instruction, and particularly as it regarded surgeons for the Army and Navy; Gen. Washington coincided with Dr. Willard in the opinion, and said that he thought it highly probable that our medical school would enjoy that advantage. The late Mr. Russell declared repeatedly, to me, that he would give more than merely the ground on which to build an hospital on two conditions; 1st, that it should be erected in his native place, Charlestown; 2nd, that it should be extended to the instruction of medical students, especially for the navy; his Idea however extended beyond seamen in the service of the Government. I will relate a few facts to show how much we need the privilege of such a hospital to complete our medical instruction. A few years since, when we were arranging our military matters and of course appointing surgeons for the Army and Navy, a very considerable proportion applied to me for certificates of recommendation for these stations. Most of the applicants were young men who went from school into the colledge where, in the last part of their last year, they read a few books on medicine and attended a course of our lectures, then lived perhaps a year or two with some country practitioner; but most of them never saw an amputation, the operation of trepanning, and some of them not even the reduction of a broken or dislocated bone. As to fevers and the common diseases of seamen and soldiers, was a knowledge they had yet to acquire; they and their connections were nevertheless much disappointed and hurt at my hesitating to declare in writing that I deemed them qualified to take the charge of the health of two or three hundred men at sea—in this state of things I visited Pres. Adams, at Quincy, and acquainted him

with the slender qualifications of the medical candidates in general, and as I found I must give letters of recommendation, I explained that such recommendation only meant *the best we had*—but that the very best was, in my opinion, inferior to a surgeons mate in a British Frigate. I thought I could speak with decision on this head having been two years in one of their marine hospitals, previous to our revolution, it is well known how our poor seamen suffered for want of proper medical assistance a few years since. In Philadelphia and New York medical instruction is on a better footing than it is with us in this quarter, for the obvious reason they have hospitals for the admission of pupils to see the course of diseases as well as surgical operations. In those cities they, in imitation of our elder brethren in Europe, make their hospitals answer two very important purposes; viz, the relief of the sick and the education of Physians and Surgeons. With this plan, in view of making the marine hospital answer the purpose of medical instruction as well as the primary one of comforting and healing the sick and wounded, I have it in contemplation to apply for the appointment of Physician of it; as my view in conducting it, the general idea is, 1st. To fulfill every thing required by its institution respecting the sick and wounded. The rules and orders respecting them to be considered as superceding all others. 2nd. To introduce pupils of physic and surgery to the bedside of the sick and to all important chirurgical operations subjected to all those good and wholesome rules established in European hospitals. 3rd. To give a set of clinical lectures comprehending what may be called extemporaneous practice of physic and surgery, and also a short course of lectures on the most approved mode of preserving the health of seamen, with other matters, that may arise out of existing circumstances which cannot at present be foreseen. I have communicated my ideas to but one member of Congress, Dr. Mitchell, who is so well pleased with the design that he advised me to lose no time in making my application. I therefore send you this sketch of my plan but shall wait for your further opinion upon it, and will act accordingly. In the meantime I remain with high respect and esteem, "&c. &c. "BENJ'N WATERHOUSE."

"To Gen. Lincoln
"Boston."

APPENDIX II.

JOHN WARREN'S LECTURES.

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JOHN WARREN'S LECTURES.

The first course of lectures in the Medical School began in October, and continued for a term of six weeks. The course opened with a public lecture by one of the Professors, and usually consisted of an historical sketch of the various branches of medicine. In 1783 this lecture was given by John Warren, and is full of historical information and philosophical reflections. After an account of Medicine from the Deluge to his own time, the lecturer showed the advantages and necessities almost for the minister, the lawyer, the artist, the sculptor and the musician to possess some knowledge of human anatomy. In his direction (for students) which follows, he says: "It may be here observed that no previous medical knowledge is requisite for the perfect understanding of every part of our subject; and, let me inform you, that all the most eminent Anatomists have given it as their opinion that the reading of Authors on this subject previous to dissections is by no means necessary, because books almost universally convey an imperfect idea of the situation of the parts, or, what is frequently the case, lead those who have not attended the Demonstrations into such errors as are exceedingly difficult to correct afterwards." As the best authors on anatomy he mentioned Cheselden, Keil, Winslow, translated into the English, Fife, John Bell, Charles Bell and Sabatier. On physiology, Ray, Haller, Fleming, Boerhaave, Cullen and Blumenbach.

Warren's course in anatomy was divided into the six following general heads:*

I. Osteology or a Definition of the Bones.
II. Myology, of the Muscles.
III. Splanchnology, of the Viscera contained in the large Cavities.
IV. Angeiology, of the blood vessels and lymphatics.
V. Neurology, of the Nerves.
VI. Adenology, of the glands.

A description of each part, with the function it performed, the disease or accident to which it is most subject, and the operations of surgery that may be performed upon it, comprised this course. It usually included the dissection of one body. At the close of each course one of the Professors addressed the students. Here is Warren's address at the end of the first course:

"Gentlemen:

"We have now arrived at the close of our first course of anatomical lectures under the medical institution of the university of this place. Many disadvantages necessarily attendant on an undertaking so perfectly novel in this part of the continent, have accompanied us in the prosecution of our subject and far be it from me to assert imperfections from this cause are the only difficulties that have been apparent in our demonstrations—there are others which I am sensible may with propriety be imputed to causes of a different kind and of a more personal *nature*. It will however be considered that though the weakness of an institution now in its infancy may not admit of those extensive advantages which the nature of it is calculated to produce, yet that when confirmed by custom and maturated by the hand of civilization it may be rendered highly useful to the public and a means of promoting inquiries into and diffusing knowledge of the operations of nature in the animal economy. The diffi-

* Whether these lectures were given once a week or oftener does not seem clear. The division of the course on Anatomy into six parts and the fact that the course lasted six weeks would seem to point to weekly lectures rather than otherwise. This view is further strengthened by the following notice in "The Boston Magazine," November, 1784: "Yesterday the (weekly) Medical Lectures of the University commenced at Cambridge for the season."

culties attendant on the prosecution of anatomical investigation in this part of the continent have been so great that the most determined perseverence will be capable of surmounting them. It is however to be hoped that with the clouds of ignorance and bigotry those of prejudice and superstition will speedily be dissipated. We may yet hope for the happy day when that Profession which has for its object the most invaluable of all human blessings will cease to be treated with neglect and indifference, and the means of education preparatory to the practice of that profession which regards the lives of our fellow creatures, shall command an attention and countenance at least equal to that which has for its object the precarious tenure of interest and property.

"You gentlemen have seen sufficient to convince you that without an accurate knowledge of a system it will be impossible to obtain any competent idea of the animal economy, and consequently as absurd for one destitute of that qualification to undertake the care of a disease as for a person totally unacquainted with the structure and composition of the various parts in a clock to remedy any defects in the discharge of its functions. A multitude however have presumed upon the former; and sported with the lives of their fellow creatures though none but a mad man would engage in the latter.

"It is for you to determine whether within the compass of your own knowledge there are not to be found practitioners in the medical art utterly destitute of the requisite qualifications.

"I know (to) you they are the objects of detestation and contempt and that such of you as are determined on the practice of this profession will above all things be studious to avoid the possibility of ever appearing to others in the despicable light that they do to you.

"The exquisite harmony and perfection by which the various parts of this complicated system are adapted to each other must fill us all with the most exalted ideas of the skill and wisdom of its architect. By enquiring into it and an acknowledgement of it, is a rational Tribute, to the omnipotent Author.

"The investigation, by instructing us in the knowledge of ourselves, must evince the position, that, Man has been the special care of Heaven. The structure of the body and the faculties of the soul are a full proof of divine attention and the consideration must inspire us with sentiments which will naturally be productive of worthy actions.

"To prosecute the enquiry then as a branch of natural philosophy is laudable, is useful and may be productive of effects individually and extensively supremely beneficial. That they may be attended with success by such of you gentlemen as have chosen this profession for the pursuit of your studies and practice is my most sincere wish. Let me recommend to you never to rest satisfied with any present attainments in this science. Depend upon it there is an extensive untrodden field for observation, ex-

periment and improvement. There is every excitement to diligence, perseverence, and believe me the present is the only time for laying in a sure foundation for its splendid superstructure. If you lose it you will regret it when it will be too late to profit by a result of your experience—for a thousand obstacles will hereafter present it to your view. I cannot wish you a greater happiness than that which is the fruit of a proper qualification for the grateful office of preserving and relieving the calamities attendant on disease and infirmity. It is a satisfaction that you cannot be deprived of, it is a rational source of real and sublime pleasure, the sensations attending it, are an honor to humanity and stamped an indelible dignity on the character of the physician."

In the year 1789 the course of lectures began to assume a more organized and definite form. There were given twenty lectures in Anatomy, demonstrated on a "recent subject." Some of the lectures were in Boston, including the last one of the course which was on the subject of Midwifery. All these lectures were definitely planned with the object of covering the greatest possible variety of anatomical and physiological conditions; for instance, the lectures show that the cadaver used for dissection and demonstration was selected with this object in view, namely a male one year, and a female the next year, thus giving to the student in the two courses the advantages thus afforded. The scope and development of these lectures may be learned from the following synopsis for the year 1790:

Lectures began Oct. 6th.
Dissection began Oct. 15th.
On a recent subject.

Lecture 1. Introductory—the History of Anatomy.
2. General division & the structure of simple fibres.
3. The 5 pr. abdominal muscles.
4. Still on the abdominal muscles.
5. Peritoneum & Omentum.
6. Jejunus, Illm, Cecum, Colon, Rectum.
7. Mesentery, Stomach, Spleen, Pancreas, in situ.
8. Coeliac arteries and branches. Mesenterica supply and

plexus, solar and hepatic and plexus, and inferior plexus and their distribution to the viscera.

Vena porta and biliary ducts all in situ. with the duodenum and pancreatic duct.

9. Stomach, Liver, Spleen, and Pancreas, taken out of the subject cutting off the trunk of the aorta above the coeliac axis & below the mesenterica superior—and the vena cava below the diaphragm, and an inch below the liver, exhibiting the vessels attached to them all the viscera being connected with each other. Demonstrated the structure of the Spleen, liver, coats of the stomach, valvular coli, and the structure of the pancreas.

10. The Brain and ten capital pairs of nerves.

11. The emulgent veins and arteries with the other branches from the Aorta and Vena cava in the abdomen.

Division of the Genitals—Spermatic artery and Vein—Testicle with Scrotum, Dartos Tumica vaginalis and albeginea—Testicle Corps Hymenanum, Epididymis and Vas deferens. Hernia congenital.

12. The Kidneys raised up out of the abdomen with all the vessels attached; the relations of them examined, with the course of the ureters to the bladder, the Vas deferens to the Vesiculae seminules for which purpose the rectum and bladder separated, and the umbilical arteries traced to their origin, the 3 pair muscles of the Penis—the coats of the penis, origin of the crura and general view of the corp spongios and urethra, and operation of dividing the symphysis pubis performed.

13. The Bladder cut off just above the entrance of the ureters into it. The vesicule seminales particularly expressed, the prostate gland—opening made into the first portion of the Urethra Caput gallinaginis, shown also in an ox—2 portions or membranes, 3 bulbs of the Urethra—Urethran Glans Cowper's Glands separated from the rectum and out of the body.

14. Sphincter Ani and levators around the anus separated from the other parts. Vesiculae seminales dissected so as to show the convultions. Kidneys—Capsulae semalis—one kidney dissected through the inner edge, the vessels traced to the other side—three substances demonstrated and structure of the ureters and coats of the bladder dissected.

15. Female genitals—Doctrine of conception—Placenta exhibited —Circulation and nutrition of the foetes explained.

16. Muscles of the face, over forehead, nose, externally of Eyes, Lips, Cheek, and upper Jaw. Diaphragm.

17. Muscles of the os hyodies 5 pairs, of the tongue 3 pairs; sterno thyroidens and hyothyroids—Cartilage of the larynx, first demonstrated in a preparation.

18. The lower jaw sawed in two—the external and internal pterygoid muscle, the palate, fauces and eustachian tube examined. Five principle muscles of the palate, spheno salpingo staphilinus or circumplexus palate just within and under the eustachian tube into which passed a catheter just below it the salpingo staphyline—Azygons Mascagni, Glossostaph.—making the anterior arch and thyro staphylinus posterior. 11 pairs of the pharynx,—3 of the thyroid cartilage with 2 before & 1 now—the arytenoid & thyroepiglottis.

19. Five pairs of muscles of the head situated before longus colli on the neck. Muscles on the thorax, pleura and Mediastinum the sternum being raised.

20. The Trachea, Pericardium laid open between the mediast, large blood vessels in sito, Bronchi—Lungs, Various vessels that form them, all inflated in sito—general view of the circulation.

21. The Heart, its connection with the lungs—the parts traced according to the circulation being laid open as advanced, viz: right auricle—valvle tricusp—Ventricle—Explanation of the circulation, its principle—viz; unirritability. Explanation of the stroke upon the ribs in the hearts systole —proof of the shortening of the heart from the structure of the columnee (word unleg.) and from experiment— Pulmonary artery 2 valves left venous sinus—auricle. Ventrical valve into aorta &c. Valves & coronary arteries —general account of the difference between the foetal & adult heart.

22. View of the nerves that pass to the heart and lungs from the brain—parvagum traced to the Osophagus intercostal nerves that come out with it traced to the sides of the vertibrae of the back—Diaphragmatic nerve traced from its origin at the lower part of the neck from fourth and fifth cervical pair traced down the side of the pericardium to the diaphragm,—The method of accounting for the respiration by the compression of this nerve from the distended lung—The circulation in a foetus traced in a foetus through the umbilical arteries—the placenta the umbilical vein— this inflated with duct venos and air forced into the left

auricle—the foramen ovale, the valvue eustach demonstrated—a proof from this to be that the blood from the vena cava ascend passes into the left auricle whereas that from the descendens passes directly into the right auricle and thence into the right ventricle without ever mixing with that from the ascendus—orifice of the coronary veins with its valves, the ductus arteriosus shown.

23. Some observations on the use of respiration, on the effect it produces upon the lungs—the test formerly in use to discover infanticide—futile reasons mentioned—The external muscles on the back of the trunk and neck—the 3 pair of muscles of the Scapular.

24. The rest of the muscles on the back of the trunk and neck to the last of the vertibral—The 9 pairs of os humeral muscles, 2 flexors of the forearm, 3 extensors, 2 pronators, 2 supinators, 4 carpal viz; 2 flexors and 2 extensor muscles of the fingers, common & proper.

25. Lower extremity muscles, 13 of the thigh, 11 of the legs, 3 extensers of the tarsus, 2 tibial muscles, the peroneal, flexers of the foot, and extensers, proper and common.

26. The nerves—7 cervical,—brachial 1 plexus & the six nerves of the arm—axillaris—muscles cutanious—mediana—cubitalis —radiules & cutaneus internus—12 intercarpal nerves, 5 lumbar—anterior crural and obturator, 6 of the os sacrum —great popliteal is divided at the ham into tibials & peroneal and one amputation of leg.

27. Osteology—general structure—processes—cavaties—2 divisions —1 as to form—2 as to media—as to form order one dicrothosis.

Spine envested of its Arthrodieginglynum.

Ord. II Sin—ostosis

Sutera, Havertian
Gomphosis

As to Media 2 Species

Syssarcosis
Synchrondrosis
Syneurosis

Bones of the head
of the trunk
of the extremities

28. Angeiology.

29. The Ear—externan & internal.

30. The Eye—

31. A Lecture in Boston on Midwifery, exhibiting the various cases of laborious and preternatural deliveries on the Machine—ended Nov. 17, 1790.

These lectures continued to increase in number so that in the year 1809 there were forty-four, and they extended from October 4th to November 29th, i. e., eight weeks. One of the novelties of this course was the operation of lithotomy by John C. Warren.



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